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PRESIDENTIAL ADDRESS ON PROGRESSIVE MEDICINE.

By J. E. Neild, M.D., Melbourne, Victoria.

Read at the Annual Meeting of the Victorian Branch of the British Medical Association.

◆

Superficially-minded persons not infrequently ask, with more or less of a confident sneer, if medicine is a progressive science? or, when they are in a still more offensive mood, they will express doubts as to its being a science at all. and they will quote with more or less inaccuracy from Rabelais, Molière, Voltaire and other cynics, passages which, to them at least, are conclusive as to medicine being only a chaotic heap of incoherent facts and illogical theories, out of which there has been evolved an empirical method of drug-administration, which does not always kill those who are the subjects of its operation, and which occasionally, thanks to the beneficent interposition of Nature, permits them to recover from its effects, and now and then apparently to seem to cure the disease. And the history of Medicine of a past age, it must be confessed, does not invariably refute these opinions. For though at all times there have lived physicians and surgeons who, disregarding dogmas, and refusing to acknowledge authorities whose pronouncements had been recognised as laws, because they were given forth by persons who had gained a reputation for exceptional skill, sometimes by a lucky accident, it is probable that up to a comparatively recent date, the less illustrious members of our craft pursued the beaten path of authority, and regarded it as presumptuous—not to say flatly blasphemous—to differ from their elders and teachers. But after many æons there came an epoch when even the rank and file of our calling began to be courageous enough to think for themselves and were undeterred by either custom or authority from taking a course to which their intelligence and not their blind obedience guided them. It is hardly necessary to remark, however, that in this revolt from routine, there were not a few unbalanced minds or minds eager for notoriety who, misusing their newly acquired liberty for the right to shake off scientific restriction, propounded theories and indulged in dangerous experiments which startled and even shocked reasonable enquirers. Such a result, however, was only another illustration of the mental pyrexia which, at times, follows the sudden withdrawal of control; and although some of these erratic explorers gathered around them devotees and followers, who only imitated and could not originate the novelty, the consequent excitement soon subsided. In the meantime, the normal spirit of enquiry continued.

And here it is proper to make mention of the change which had taken place in the education of the young men who elected to take medicine as their vocation. A comparison of the curricula of the various medical schools in the United Kingdom of sixty years ago, with those of the present day, shows quite a startling difference between the requirements then demanded of candidates, and those now insisted upon, not only as to class instruction and hospital teaching, but in respect of the examination tests employed. It may be said with perfect truth that very few of them were really, and some of them were curiously insufficient, both as to the time actually occupied in conducting the examination and in the subjects submitted.

In those days hardly any student took the trouble to read up for an examination. He trusted to his "coach," or as he was then called his "grinder." The grinder made it a condition on receiving a pupil that after he had been up for his examination, which was uniformly oral, he should present to him (*i.e.*, the grinder) a copy of the questions which he had been asked. By long experience the grinder found that each examiner limited himself to a certain string of questions, and hardly ever went out of his routine, so that the lectures he gave—if they could really be called lectures—consisted entirely of the questions with which the examiners had dealt. The pupil was directed to take down what was dictated, to read no book whatever, but simply to commit to memory what he had taken down. If he did this faithfully, he almost invariably passed. If he did not he was "plucked." Now, at that time (I am speaking of London), the qualifications sought were principally the membership of the College of Surgeons and the licence of the Apothecaries' Society. Sometimes both were taken, but more frequently only one. It may easily be supposed, therefore, that the qualification, although legal, was sometimes, so far as scientific knowledge is concerned, little more than nominal. For then the councils of the Colleges of Physicians in the three cities, severally, of London, Edinburgh and Dublin, hedged themselves in with virtually prohibitive conditions, and, therefore, but few students knocked at their doors. The course of study and the examination at the London University were both repellingly severe, so that it had not many applicants for its diplomas. They were very valuable, but to the average man were beyond his reach. Oxford and Cambridge were similarly unreachable. The Scottish universities, except that of Edinburgh, were not greatly in favour, nor were those of Germany and America. In effect, therefore, as I have already intimated, the choice was limited to the M.R.C.S. Eng., and the L.S.A. Lond.

Going back in the career of the medical student, I have to say that he usually began by being apprenticed to a licentiate of the Apothecaries' Society for five years. During that term it was understood that he was to be taught whatever his master happened to know, which was sometimes not very much. He compounded the various pharmaceutical preparations, he dispensed his principal's prescriptions and whenever the boy was not available he delivered the medicines at the patients' houses. In about three months after his pupilage had begun, he began to prescribe for, and a little later to visit the less affluent patients, and within twelve months he was sent to midwifery cases And then his anxieties began. If he happened to be a fine well-built fellow, with a prepossessing manner and plenty of confidence, he got on well with the nurse, who was almost invariably of the Sairey Gamp order; but if he were small, and not showy, with no fight in him, Mrs Gamp had him at her mercy, and he had a bad time and so he came to dislike midwifery very much. But he learnt and performed a good deal of minor surgery, so that altogether, as you will see, he picked up a great deal of practical, if occasionally rough, professional knowledge, which was of some value to him, and not unprofitable to his principal. He sometimes blundered of course; the best of us blunder, and it is probable that, in this way, he now and then helped some of his patients into the other world—prematurely. But he meant well and acted according to his lights, such as they were. At the end of the five years he was equal to ordinary requirements, in country places, so that if he unfortunately happened to be unpossessed of the wherewithal to pay for his lectures, and hospital attendance, he accepted an appointment as unqualified assistant to a medical man who had more of his rougher work to do than he could compass If this appointment happened to be in one of the larger towns where there was a provincial medical school, he took a lower salary on condition that he could attend the school and the hospital. This was sometimes possible during the apprentice period In this way he saved much time and got up to London to grind for his examination much sooner. Being once in London, or in Edinburgh or Dublin, he could generally prepare himself in three or four months. Having passed, he began what in most cases was the life of toil of a general practitioner. For those who had aspirations, ambitions and plenty of time and money, and who could take the higher positions which the old Universities enabled them to obtain, a better future was open to them. To-day such a future is open to nearly every student of medicine, for now the exclusive corporate bodies have removed or relaxed their former restrictions, or they have blended their corporate interests, and a liberal and, therefore, a wise policy has taken the place of the former prohibitive one, the effect being to popularise those institutions and greatly to facilitate the obtainment of qualifications which once were impossible to procure. Sixty years ago or less, most of the higher licensing bodies in Great Britain were jealous of each others' reputations, and they clung to their traditious, rights and privileges. They represented isolated and incompatible forces, whose co-operation seemed impossible, and it was not until the General Council of Medical Education and registration in Great Britain was, by statute, established in 1858, that the study and practice of medicine in the old country was systematised and organised. The change which followed upon this union of representative forces may be properly regarded as a veritable renascence in contemporary medical history. Then medicine began to be really progressive. For the scientific training of those devoting themselves to the healing art, has been very properly and successfully based upon the remarkable discoveries and changes, which, during the last six decades, have distinguished the several sciences which make up the collective science of medicine. At this day physicians and surgeons are not only practitioners of medicine and surgery, but they are workers and discoverers in the several sciences, out of which their Divine art has grown. Perhaps all are not successful workers, and perhaps some are rather doctrinaires than discoverers. but there remains a noble band who, honestly and industriously, and often under the stress of every day duties and cares, apply themselves to the collection of facts, and the investigation of phenomena thereby disclosed, the resulting knowledge thereby obtained throwing a new light upon their labours, and fundamentally altering the treatment of many forms of disease. It is not too much to say, therefore, that as an outcome of this rational method of enquiry, much of the practice of medicine has been altered and gratifying progress made. Methods of diagnosis have improved; therapeutics have, practically, ceased to be empirical; the various appliances and instruments required have become simplified; the value of hygienic agencies has been increasingly acknowledged; the remarkable influence of aseptic dressings in all surgical procedures has made complicated operations possible; and the microscope has enabled us to pronounce with entire accuracy upon the exact nature of those micro-organisms which formerly were incomprehensible and mysterious. These are some of the things which we wisely have accomplished. On the other hand, we have equally wisely discarded certain things which, not so long ago, we regarded as our duty to recognise. Thus, we do not now carry about with us a case of lancets to phlebotomize every other patient whom we visit; we do not incessantly cover the temples, the thorax, and the abdomen with those hideous black blood-suckers—to wit, leeches; nor do we everlastingly clothe our patients with cantharides plasters; nor do we, on the smallest provocation, scarify the skins of unoffending persons and clap upon the bleeding wounds a glass fiend to drink the blood therefrom flowing; nor do we exhibit tartar-emetic to patients already half dead with pneumonia; nor do we prescribe black draught in half-pint doses, nor half drachms of calomel nor half ounces of rhubarb, nor drachms of aloes, nor pints of infusion of gentian, nor *ad libitum* supplies of various tinctures. We are not the slaves of custom and unreasoning habit, as once we were; we take our patients into our confidence and treat them as rational beings. All this means a beneficial change and progress. But let me candidly ask, is there now as much good-fellowship in the profession as once there was, and as now should be? Good-fellowship there is undoubtedly, but, is it as warm, as cordial, as friendly, as common as it used to be half a century ago? Does not the keen competition in the race for success militate against the *cameraderie* which ought to prevail? Is there not sometimes too much of the commercial spirit shown in our relations both with each other and with the public? Sir Benjamin Brodie, than whom there never was a better man, either as a surgeon or philosopher, said very wisely, "Medicine is a noble science, but it is a degrading trade." He has been dead nearly forty years, but his memory will always be affectionately treasured, for his wise precepts were eternally true. If he were now alive it would grieve him to see how much of the spirit of a degrading trade there is in our profession. And this is not progress. I am very glad to believe that it is only exceptional, but that it exists more is the pity. For example, a large section of the public is of opinion that medical men are too extravagantly paid for their services, and so they continually clamour for a reduction in fees; and I am sorry to say that some medical men encourage this belief by receiving what is often practically nominal remuneration; so that presently, as it would seem, what with hospitals, some societies, especially those who offer attendance for sixpence a week, and other cheap supplies, including counter practice of certain pharmacists, it will come shortly to be a privilege to be permitted to give our services for the honour of the patronage accorded. Of course the remedy for this abuse is in the hands of the profession itself; but here comes in the difficulty that we lack the strength of resistance which only union can supply.

I can but hope that the new century whose advent is close upon us, will bring better things; and that as the progress of scientific discovery widens and quickens, so will our confidence in each other be greater, and our relations with the outer world be based upon mutual esteem, respect, and trust

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SYRUPUS ACIDI HYDRIODICI (GARDNER).—This is a 1.28 per cent. solution of absolute HI. The preparation is little known in the Australian colonies, although widely prescribed in the U.S.A. Probably because up to 1878 no stable solution had been made, it had been expunged from the U.S.P. and lost sight of, the difficulty being its instability and its very feeble affinity with the combining element, hydrogen, the tendency being for the hydrogen to combine with atmospheric oxygen, thus setting free an equivalent of free iodine. The originator of this syrup, Mr. R. W. Gardner, of New York, successfully overcame this difficulty, and at the suggestion of the late R. Wylie Gill, M.D., of New York, prepared a portable dispensable syrup, which is quite stable and reliable. This has been before the medical profession in the U.S.A. for 22 years, and for some years favourably commented upon by the leading American medical journals. Therapeutically considered, iodine in this form is much more active than the alkaline iodides; and, no doubt due to its non-irritant property, is easily borne by the most sensitive constitutions for a lengthened period. The formula is found in Squire's Companion to B.P. and in Martindale's Handbook.

CLERKS' AND WAREHOUSEMEN'S BENEFIT SOCIETY. It will be seen on reference to the report of the Council Meeting of the N.S.W. Branch of the B.M.A., on page 39, that members of the Branch may now accept appointments as Medical Officers to this Society.

ON THE SPREAD OF ENTERIC FEVER DURING THE SOUTH AFRICAN WAR.

BY R. SCOT SKIRVING, M.B., LECTURER IN CLINICAL MEDICINE, SYDNEY UNIVERSITY, PHYSICIAN TO THE PRINCE ALFRED HOSPITAL, SYDNEY.

◆

IN times past, at least in large cities, I think practitioners have mainly associated the appearance of enteric fever with bad water, bad drains, or bad milk. It is only comparatively recently that other channels of dissemination of the typhoid bacillus have been looked upon as playing an important part in the spread of this disease.

During my recent visit to South Africa, not only during the great epidemic in Bloemfontien, but also in other centres, and when camped on the veldt, I have been impressed with the importance of diverse factors besides water supply in the production of what after all has been the greatest evil to our troops in the present war.

Enteric fever may be regarded as more or less endemic in South Africa. It only required the suitable soil of large numbers of susceptible hosts to set going an epidemic of great extent.

I suppose in all warfare disease will claim more victims than the bullets of the enemy, and this most humane of campaigns is no exception to the rule. Typhoid fever and dysentery have been indeed the main scourges of our troops. One asks why this should be, and further, can such outbreaks be avoided, or in any way lessened in their magnitude?

I wish to premise my subsequent remarks by saying here that I have no bacteriological observations to set forth regarding water supply, or the examination of dust or insects. The conditions of service in the field made such investigations an impossibility.

A—Let me repeat that enteric fever is endemic in South Africa. In many of the towns it is a familiar disease, and some of them have been in the past the seats of small epidemics. I may instance four, where I happen to have made personal inquiry of residents or local medical men, viz., Sterkstrom, Burghersdorp, Bethulie, and Bloemfontein.

B—In this campaign we had, fresh to the country, a huge army, over 200,000 strong, the individuals composing it being, for the most part, at the age at which enteric fever is specially prone to occur, and living under circumstances in which diminished resistance to morbific influences was frequently present, from exhaustion, and occasionally from underfeeding. In short, a suitable soil for the bacilli to grow upon.

These two factors being mentioned to start with, I now turn to the immediate sources of the mischief:

C—I suppose one may say that each distinct case of microbic disease is in itself a further focus for the dissemination of the ailment; hence an epidemic such as that in South Africa spreads by its own vastness.

(1) *Faulty Milk Supply.*—This may be largely discounted as a cause, for cow's milk was more often absent than present. "Tinned cow" was more often in evidence, and later on, when the sick got the fresh product, the risks of contamination were really much the same as in civil life in a rural or suburban district.

(2) *Drainage.*—There was none in the strict sense of the word. Concerning open latrines, I will refer to them specially a little later.

(3) *Water Supply.*—Undoubtedly impure water played a large part in producing sickness; but while I wish to give it its full importance, I do not wish to exalt it to quite the commanding position it holds in epidemics in civil urban communities. No one who saw the foul watercourses and dirty dams, or who rode over the equally foul catchment areas which often fed these sources of water, could doubt for an instant the great chances, nay the certainty that these supplies of water were contaminated to a dangerous degree. I have before my eyes as I write camps whose water was obtained from creeks, the source of which had meandered through a Boer laager, where cases of enteric fever had occurred. I think of another instance of the spread of this disease from tainted water which seems so suggestive that I think it worth recording. Half way up Boschman's Hoek, a fortified hill near Sterkstrom, there was a small spring flowing across a little green plateau—a veritable oasis in a thirsty land. Round it were encamped a small outpost of a certain corps, and among the men composing it was a soldier who came up from East London, and shortly developed enteric fever. Later on several more cases appeared in men who had shared the tent with the first patient. These men were said to have been careless and untidy in their domestic ways. Be that as it may, every thirsty Tommy toiling up this great hill stopped at the spring which lay alongside of the encampment, and anyone who has been in South Africa knows what a thirst a Tommy can have, and how reckless he is in gratifying

it. I have seen several hundred men ride into a foul dam, water the colour of ink, and the consistency of thin brose, and fill their bottles without a thought.

To return to the garrison on the top of Boschman's Hoek. In the course of a fortnight or thereby, cases began to come down to Sterkstrom from this isolated wholesome looking hill, and subsequently the epidemic became general in the division quartered there.

(4) *Dust.*—We know that rain, although it ultimately washes the soiled face of the earth free of impurities, also by sweeping enteric bacilli into water channels, may be an angel of darkness as well as of light. So also may the winds of the waste in South Africa be a source of danger. In these high uplands everything dries up and desiccates rapidly; dead animals. fæces, and urine, all swiftly lose their moisture, and in the case of the two latter, if they are left exposed to the air (sunlight notwithstanding) or are not disinfected, chemically or by heat, you can readily believe how the bacteria they contain, riding on the wind-borne dust, may reach the body by inhalation, or through the food. I acknowledge again that I have no exact observations to prove this view, but it is certainly one easy to accept, even without bacteriological proof.

(5) *Flies as a factor in causing Enteric Fever.*—Of the many insectivorous curses with which mankind is plagued, two stand out in bad pre-eminence, flies and mosquitoes. Fleas, like the poor, are ever with us, and (plague notwithstanding) are friendly little creatures whose annoyances can be borne with fortitude; even lice, leading comparatively sedentary lives, have less scope to do harm; the harm they do can be endured, and even in South Africa care and patience kept one fairly free of this pest. But what shall I say of the ubiquitous and innumerable army of flies? Like the sands of the sea they were countless. Their noise all day was incessant, and the silence of night was only purchased by their claiming a lodging on the top of your tent (if you had one), which they blackened with their numbers and fouled with their excrement. Now these flies were most catholic in their food-tastes—nothing came amiss—but I persuaded myself that they found something specially luscious in enteric stools. All fæcal matter attracted them, but I imagine enteric dejecta in particular. Another observer in Bloemfontein has stated that the flies clustered specially about enteric cases, but in this matter you may notice flies naturally go to cases where the patient does not disturb them; that is, to the very helplessly ill. The latrines were often within a few minutes, or a few seconds fly from where men were camped, eating and sleeping. Can you doubt that a fly would, so to speak, take the *piece de resistance* of his meal in a near latrine, and then drop in to join the soldier for the lighter parts of his repast, jam, sugar, butter, etc.? Can you doubt that he carried on his legs some of the first parts of his feast? I am therefore strongly of opinion that great as the influence of bad water was in causing disease among our soldiers, two other factors must be considered, viz., dust and flies. In epidemics here in Australia, in mining camps, even where distilled water is used, or in bush townships, where rainwater from the roof is the sole supply, I believe that the source of the mischief is often largely due to dust and the carriage of bacilli by flies from open closets, or urine and fæces deposited on the surface of the ground.

I now turn to the question of prevention.

1. *The Disposal of Fæces and Urine.*—With regard to drainage in its elaborate sense, I have nothing to say; but with regard to the immediate disposal of excrement one cannot, I think, be too insistant in either covering it up, or disinfecting it. The Boers, who are a dirty folk, took little sanitary precautions. They defecated pretty well anywhere about, short, I suppose, of their tents. Their laagers stank horribly, and they left their encampments in a filthy condition. The British, on the other hand, took care and pride in filling up their latrines and leaving their camping grounds in a clean, orderly and stenchless condition. The insanitary habits of our enemy seemed to do them no harm, for although they did suffer from enteric fever, I am satisfied that it was to a much less extent than we did. They seem unhappily to possess a kind of immunity to it. Our latrines were for the most part open trenches, which were filled in as they became full, or on shifting camp. I think that every man using a latrine should be obliged to imitate a certain tidy domestic animal, and cover up his excrement with earth at the time of evacuation. In some stationary camps empty paint or oil drums were used to defecate into, and then covered with a lid. This was an admirable plan, and shut out many a hungry fly. In camps with stationary hospitals, where large numbers of enteric cases were congested, special precautions were taken with the excreta of typhoids and dysenteries. Some efforts at immediate disinfection were carried out, and the defecta were at once buried in a special trench. No pains, in my opinion, should be spared in the immediate disinfection and burial of such dangerous matter. In

Pretoria, at one of the hospitals, I read that a large tank is set on a furnace, and is partially filled with some strong fluid disinfectant, which is kept boiling. Into it the excreta is emptied at once, and in this unsavoury pot the bacilli perish. On the veldt, on a march, patients suffering from enteric and dysentery must often defecate in the open, and thus spread infection. I remember once, with a sick convoy, picking my way among the stools passed during the night close to the buck-waggons on which the sick were travelling. You verily could recognise the two distinct brands of stool (enteric and dysenteric) as they lay, yellow or blood-stained, in the morning sunlight. With this careful disposal of excreta, I urge also the burying of dead animals, which, near large camps, the authorities very faithfully tried to carry out. In short, everything which diminishes the conditions which encourage the multiplication of flies and the bacillary infection of wind-driven dust should be attended to.

2. *Water Supply.*—Of the greater questions, such as a clean catchment areas, freedom from gross filth, avoidance of dams and creeks visibly foul, I need say nothing.

In South Africa, as in New South Wales, the water supply over large areas at certain seasons of the year is uncertain, and dams and streams have to be carefully enquired after and located when planning out a march. I wish here to discuss three points only in connection with drinking water.

(*a*) Can the soldier ever be taught, thirsty as he is, that he must often find it more to his advantage to bear his thirst. horrible as it is, than to slake it at the first filthy, sewer-like stream he crosses? Will he learn dodges in avoiding thirst and making the most of what water he has in his bottle? Let him, if possible, begin the day with a good drink of fluid of some kind (water, tea or coffee). Let him only take little sips from his bottle when on the march. To fill yourself up with liquid when actually working. knocks all the endurance out of you—at least, so I think. It is good not to be weary in well-doing. so eternal preaching to the soldier on the value of clean drinking water and self-denial is worth continuing. But Tommy, good chap as he is, is hard to teach on such matters. An old friend, now in command of a regiment, told me that at a certain camp they put up a notice over a watercourse—"Dangerous to drink; water comes from the graveyard." At that very place many a soldier passed, paused, felt thirsty—"Oh, d—n—tion!" said he, "let's taste the corpse-rum"—and he drank his fill.

(*b*) *Filters.*—I have carefully read much of the best literature on their value, and apparently the Pasteur-Chamberlain, and Berkefeld are the most to be trusted; but to pin one's faith to their entire efficacy under the conditions of war in South Africa is to lean on a frail reed. On a march, or in the absence of better means of sterilisation, or as an adjuvant to heat, by all means let us use them, but do not let us forget the best method of all, which I leave last.

(*c*) *Boiling.*—It is just this matter of boiling which is difficult, sometimes impossible in a timberless country. On the march it was always a constant source of anxiety to make sure of getting enough fuel, old posts, mimosa bushes, or cow dung, to cook the various meals of the day. Time and fuel were insufficient to permit the boiling of water to fill the men's water bottles. A general of division once said to me in his most pontifical manner: "The boiling of water for large bodies of men is an impossibility." And so it is in a timberless country on a march, but it is not so in large stationary camps near the railway or a coal mine. Surely, if it diminishes the prevalence of enteric, it is cheaper to get fuel somehow, and take the precaution of boiling the water, than have the expense, the disability, and the wretchedness of a sickly camp! Surely some cunning worm-like apparatus for the rapid boiling of water with a small expenditure of fuel could be invented! When I spoke of getting coal I did not forget that such luxuries, of course, cannot be allowed to stand in the way of the use of transport for purely military purposes.

3. *Innoculation*—This method of prevention is still on its first trial; but from what I have seen and heard of it I believe it has a useful future. The statistical results of the method as applied to the forces in South Africa as a whole are not yet published. Those in connection with Ladysmith go to show that innoculation exerts a considerable protective influence so far as contracting the disease is concerned; but if a patient does get it—even although previously

innoculated—the attack does not seem very appreciably modified. I have myself seen several fatal cases among those who had been properly innoculated. I do not know if the Ladysmith results have yet been published. I quote what I have just written by memory from a recent conversation with Professor Wright, of Netley.

I might readily enlarge on this most ample subject of enteric fever; but the object of this paper is mainly to emphasise the part played by flies and dust in the spread of this disease wherever bodies of men are massed together without proper means to deal with infected excreta.

NOTES ON THE PLAGUE.

By A. Jefferis Turner, M.D. Lond., Brisbane.

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When first urged by your hon. secretary to write something about the plague I was very reluctant to do so. From dealing with the disease from an administrative standpoint, I am restrained by obvious considerations. From a purely medical point of view, I should have liked to have dealt with the subject in a more thorough manner than I can hope to do to-night. However, as it has been represented to me that even a few notes may be of interest, I have, on reconsideration, made an attempt to give a brief outline of some of the results of my recent experience.

The medical profession have, I think, hardly as yet sufficiently grasped the revolution in our ideas of infectious diseases, which has followed from the discovery of their causative agents. The old conception of an infectious disease as something characterised, and to be recognised by the occurrence of a certain assemblage of clinical symptoms was indeed true; but it is now known to be but a part, sometimes only a small part, of the whole truth. To what a startling extent has the discovery of the tubercle bacillus modified our views of tuberculosis! What endless controversies as to the anatomical definition of tubercle, the exact relation of pulmonary phthisis to tuberculosis, of the latter to the so-called scrofulous inflammations of bones and joints, and other vexed questions, have been finally laid to rest! The most diverse clinical conditions result from the attacks of the one organism, and from the practical standpoint of preventive medicine, as well as that of the scientific pathologist, must be grouped together. Similarly, our conception of typhoid fever is undergoing a change. We have no longer any justification for restricting this term to cases presenting certain clinical symptoms during life, combined with pathological changes in Peyer's patches, recognisable *post-mortem*. The typhoid bacillus causes fevers in which all these are absent, and which can yet be correctly diagnosed with practical certainty. Again, the bacillus may produce not only typhoid fever, but is occasionally the cause of local inflammations, such as periostitis or cystitis, which have no clinical resemblance to the general infection. Diphtheria again is now recognised to be a protean disorder. It embraces cases without any faucial membrane, cases of chronic membranous rhinitis without constitutional symptoms, etc. I need not weary you with a recapitulation of the long list of morbid conditions, which may be caused by the streptococcus, or by the staphylococcus, the pneumococcus, or the bacillus coli communis, *et hoc genus omne*. The facts are well known, but our ideas still, I believe, lag behind our knowledge, and in dealing with a little-known disease, such as the plague, we still expect to find a disease appearing exclusively in several varieties, characterised, among other things, by well-marked clinical symptoms. This assumption is, I am convinced, quite unwarranted; and we are also apt to forget that a pathogenic organism may cause any degree of ailment, varying from a virulent acutely fatal attack to a condition indistinguishable from normal health.

The morbid conditions which I have observed to be caused by the *bacillus pestis* may be conveniently grouped under the four well-known subdivisions, provided it be understood that such classification is to a large extent artificial. We are in reality dealing with a protean disorder, with innumerable varieties and sub-varieties, of which only a few have come under my observation. A more extended experience would almost certainly obliterate the lines of demarcation between the sub-divisions, though these are likely to be retained as convenient. They are (1) Typical bubonic plague; (2) Mild cases, which have been variously named, "ambulatory plague," "masked plague," "larval plague," and "pestis minor"—the last is the most convenient designation; (3) Plague septicæmia; (4) Pneumonic plague.

1. *Bubonic Plague.*—This is the classical form of the disease, and until lately the only form that could be recognised with certainty. Even now it is the only form of which we can say, that it is not likely to escape observation. The symptoms are so well-known that it is unnecessary to adduce examples. Such cases formed the greater number of those reported

during the Rockhampton epidemic, and a considerable proportion of those observed in Townsville. I will merely remark that those medical observers—fortunately very few in number—who have expressed in the daily press their doubts as to the existence of typical cases of bubonic plague in Australia can never have had the opportunity of seeing these cases, or else merely signalise their own incapacity for clinical diagnosis.

2. *Pestis minor.*—These cases vary much in character. They range in severity from a moderately severe illness to a slight and transient ailment. There is no sharp line to be drawn between the severe forms and the typical form of plague, the difference is one only of degree. The milder cases would never be suspected of plague at all, unless the observer had had previous experience, or unless he instituted careful and methodical search for the characteristic bacilli. The clinical symptoms are, however, sufficiently marked in most instances to arouse suspicion at once in the experienced observer. Time will not allow me to do more than quote two typical examples.

A young male adult in perfect health, while sitting down quietly, suddenly felt a sharp pain in the right armpit. The pain increased so much that he soon after walked home and went to bed. Shortly after severe headache came on and lasted all night. Next morning he got up and went to obtain medical advice. He had then a a temperature of 102°, a thickly-coated tongue, and appeared very drowsy. In the right axilla was an ill-defined swelling, which was acutely tender. His condition was somewhat better when I saw him for the first time at the invitation of Dr. Huxtable on the next day His temperature never rose above 100.4° that day, and the general symptoms were less severe. In the right axilla there was a circumscribed cutaneous blush. The lymph-glands were easily felt, enlarged, and acutely tender. A puncture was made with a hypodermic needle and smears prepared. In these, after considerable search, a very few bacilli were found resembling plague bacilli very closely. As there were special circumstances connected with this case, which rendered it necessary to be very certain as to the diagnosis, the suggestion was made that one of the glands should be excised. The patient readily assented. From the excised gland a number of smears were taken, and in every one of these typical plague bacilli could be found by careful search, though in extremely small numbers. The small wound healed rapidly, and the patient made a speedy convalescence, the temperature never rising to 100° after the second day.

It is more common to find the femoral glands affected. For instance, a middle-aged man, previously in good health, felt "a bit sick," on waking, and instead of proceeding to business, visited his medical attendant. He complained of headache, giddiness, vomiting, and of slight pain in the left leg. The case was reported to me, and I saw him soon after. He appeared somewhat excited (this was perhaps natural), had a slightly furred tongue, eyes somewhat suffused, temperature 100.4°, pulse fairly good. The left femoral glands were distinctly enlarged and tender on pressure. A puncture was made and I found one or two suspicious bacilli, but deferred a positive diagnosis. In the evening his temperature was 101.6°, and his pulse distinctly more compressible. I made another puncture, and this time satisfied myself of the presence of morphologically characteristic bacilli. Next day his temperature was normal, and he made a rapid recovery. I was informed that he was kept in bed only four days.

A typical case of pestis minor, without local tenderness, and without obviously pathological glandular enlargement also occur. I must, however, defer a more detailed account of these varieties for some future occasion.

3. *Plague Septicæmia.*—This is the most virulent form of plague, yet none is more likely to escape recognition. I can illustrate this by the case of a male adult, who died in the Rockhampton Hospital after a few days febrile illness. Dr. Read, the resident surgeon, recognised the case to be of a doubtful character, and invited me to be present at the *post-mortem.* We found well-marked endocarditis of the mitral valve, with thickening and recent vegetations. There were, however, no infarcts in any of the organs as might be expected after death from malignant endocarditis. The spleen was considerably and uniformly enlarged. There were no hæmorrhages or petechiæ in the serous membranes, such as are frequently found in fatal cases of plague. On microscopical examination very numerous plague bacilli, many of them absolutely typical, were found in the spleen, the lungs, and in blood from the median basilic vein. Cocci were also found in the blood, probably derived from the diseased valve. The patient had succumbed to a mixed infection. Probably the cardiac disease was of older date, but the source of the plague infection was traced to the same spot from which another fatal case had originated a short time previously. I may mention, in passing, that I have observed other interesting examples of mixed infection by plague bacilli and streptococci; for instance a case in which extensive

phlegmon of the thigh ensued, and another case complicated by cutaneous erysipelas.

4. *Plague Pneumonia.*—That these cases may readily escape recognition is shown by the following example. A woman between youth and middle-age had been drinking heavily for some time. She had a sudden fit, apparently of an epileptoid character, and a medical man was sent for. He found her dead on arrival, and being unable to sign a death-certificate, a medical examination was ordered by the police magistrate. Dr. Humphry, who performed the *post-mortem*, invited me to be present. There was some old tubercular mischief at the apex of right lung. The basal lobes of both lungs showed diffuse pneumonia, the inflamed portions not being completely hepatized, and not showing any defined border. The liver was extremely fatty. The kidneys showed cortical injection. The other organs appeared normal. Typical bipolar plague bacilli were found in the diseased lung, mixed with other bacteria. Typical bacilli were also found in very small numbers in the spleen, which was not enlarged, and in one of the femoral lymph-glands, which was not enlarged, and appeared perfectly normal to the naked eye.

I will conclude by a few brief remarks on my laboratory experiences. My varied and sometimes harrassing duties prevented me from undertaking any work requiring long and continuous observation. Such work as was accomplished under these difficulties was mainly the diagnostic examination of specimens. This is easy enough when the bacilli are numerous, but in cases of pestis minor is sometimes very laborious, many specimens having to be prepared, and much time spent in their examination. No observer can fail to be struck with the variability of the bacillus. One is apt to be misled by the bacilli commonly figured or exhibited, which are, naturally, taken from the most typical examples. In the same specimen all gradations may be observed from the most typically bipolar examples, staining only at the extreme ends and perfectly clear between, to specimens in which bipolarity is imperceptible. To establish the diagnosis distinctively, bipolar specimens must be searched for, and this is sometimes tedious work. I was able to satisfy myself of their presence in every instance, and some of the mildest cases furnished some of the most exquisite examples.

The variability of the bacillus is more marked still when grown on culture media. I have placed some striking examples of this under the microscope. First is a specimen from the spleen of a rat found in Cairns. It is crowded with typical plague bacilli. Bacilli were equally abundant in the heart-blood. Some of the heart-blood was sealed in a sterilised pipette, and re examined in Townsville three days later. A specimen stained then showed the same oval organisms, but with hardly any tendency to bipolar staining. When spread on agar, this blood gave a pure culture of minute transparent colonies, which at first I could hardly believe to be plague bacilli at all, for they consisted of uniformly stained, extremely short bacilli, mostly resembling cocci. However, a sub-culture in broth gave the very characteristic threads of oval bipolar bacilli, which have been so often figured. On re-examination of the agar culture some weeks later, it was found to consist of a motley assemblage of bizarre involution forms. This is, I think, a striking example of morphological instability.

The disease in rats exists probably in as many forms as in the human subject. My own experience on this point is small. I never found bacilli so numerous in any other rat as in that from which the specimen exhibited was taken. Sometimes the bacilli were very few, and required the most careful search. Usually these rats showed enlarged spleens and somewhat enlarged fatty livers, but I examined one plague-infected specimen in which these organs appeared normal. On the other hand, I am indebted to Dr. Row for an instance in which the spleen was much enlarged, and the liver was so big that it almost filled the abdomen, and was studded with minute abcesses.

TREATMENT OF LUPUS ERYTHEMATOSUS.

BY W. MCMURRAY, M.D., PHYSICIAN TO THE SKIN DEPARTMENT SYDNEY HOSPITAL.

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BRIEFLY, I propose to lay before you a few facts and conclusions relative to an obstinate skin affection, and a new and efficient method of treatment and cure. I allude to lupus erythematosus. We all know what disfigurement it produces, and how obstinate it is to treat. Having read several references where the influence of X rays on the deeper layers of the skin and their efficacy in treating this condition is pointed out, I decided to try their effect.

The first case to which the treatment was applied, was a young lady from Queensland, suffering from the erythematous form; it had commenced four years ago on the bridge of the nose and spread to the cheeks, bearing out the resemblance to a butterfly. The eruption was composed of rounded, reddened patches raised at the periphery, the central portion of the old patches atrophic and covered in places with small, firmly adherent scales. On the right side of the nose the scales were thicker and chalky-looking, their white colour contrasting with that of the surrounding parts. The disease had been treated ever since it had appeared; internally by quinine, ichthyol, ergot, tuberculin, etc.; and locally by all kinds of lotions, ointments, mulls, plasters, oxidised pyrogallic acid in aceton collodion Fowler's solution, cauterization, linear scarifications, in fact, every treatment that has been recommended. Notwithstanding all this there was not much improvement and the disease was spreading.

On July 10th, she was exposed for four minutes to the rays from a large, low vacuum tube attached to a coil giving an 8 inch spark. The skin, other than the affected area, was protected by a lead foil mask 3 to 4 layers thick, patient sitting five inches from the tube. Sittings were given daily, varying from 5 to 10 minutes. On the 9th day it had a sunburnt appearance. The treatment was now discontinued, still the redness increased for 4 to 5 days and then slowly subsided. When completely gone the exposed skin dried into a scaly condition and peeled off, leaving the surface pale, flat, but still a little scaly.

The sittings were now resumed and continued as before until a reaction occurred, this having subsided, they were again repeated. In all she had 27 sittings, the last being on September 27th. The result is nothing short of startling. The skin is smooth, pale, and free from all scales, in fact normal.

I have employed it in the treatment of 7 cases—2 are cured, 1 discontinued attendance owing to being called away on business. In two the treatment was kindly carried out for me by Dr. Harris at the Sydney Hospital, one of which was cured; the other who suffered from the sebaceous type (lupus sebaceous) attended irregularly, the disease was extensive; I am not certain of the ultimate result, as she has been lost sight of. The remainder of the cases are still under treatment.

There are several points of importance to be observed in using this useful therapeutic agent. One is to give the patient a test sitting, allow a week to elapse, and watch the result. All patients are not equally susceptible to the rays. One patient, Mrs. P., who was suffering from extensive lupus vulgaris, involving the nose and mucous membrane of the throat, 10 sittings of 5 to 10 minutes duration, tube at 5 inches, had a severe dematitis and sloughing. The burn is not healed yet, after the lapse of three months.

Another point is not to have the tube closer than 5 inches, and the sitting should not occupy more than 10 minutes. It is advisable that the eyes should be closed.

After the rays are discontinued, the result of their action goes on increasing for some days, one patient of mine aptly remarked, "You require to be careful, because of the way they sneak on you."

An X ray burn heals very slowly, and is covered with a deposit of lymph, white in colour, difficult to detach, bleeding easily. Several of my patients complained of various subjective symptoms, such as numbness, itching, pricking sensations, and flashes of light. All gradually passed off.

As to how the rays act, Freund states that there is relaxation of the deep vessels of the corium, with slight exudation in the epidermis and cutis, with consequent swelling of the hair papillæ and loosening of the hair; the molecular constitutes of the cellular elements of the affected parts are altered, and rescrption is promoted. It is not decided whether the deleterious effect of the rays on micro-organisms in parasitic skin affections is direct or due to increased phagocytosis.

In concluding, I think we have in the Rontgen rays a valuable agent for the cure of this insidious, obstinate, and disfigurating disease.

CASE OF OLD STANDING LUPUS VULGARIS TREATED BY TUBERCULIN INJECTIONS AND X RAYS. (ILLUSTRATED WITH EXHIBIT).

By REGINALD BOWMAN, M.B., C.M., M.R.C.S., PARRAMATTA, N.S.W.

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MR. H., *æt.* 62, married, with large, healthy family, was sent to me by Dr. Beattie, of Liverpool, in March, 1900. He had never had any serious illness His general health was good, all organs and functions being normal.

ORIGINAL CONDITION.

I found a large lupoid ulcer occupying the left angle of mouth, involving half the upper lip and three-quarters of the lower. Tubercular nodules could be felt extending outwards in the apparently healthy cheek to a line dropped vertically from the outer canthus of left eye. Some eight nodular masses are to be seen in photo No. 1, distributed over the face, nose, and forehead.

The surface of the large ulcer was nodulated and raw, secreting pus and serum, which rapidly crusted and became offensive to smell; hæmorrhages from the cracked surface were frequent. The pain was of a burning character and became unbearable when exposed to the air.

TREATMENT.

From March, 1900, to June 15th, I gave 36 hypodermic injections of tuberculin, gradually increasing the dose from 1 c.c. of a 1 per cent. solution to 9 c.c. of a 10 per cent. solution. In all, three bottles of tuberculin were injected, with the result: (1) That the ulcer looked healthier and cleaner; (2) That he was relieved of all pain; (3) That a large ulcerating nodule size of a florin, situated between the shoulders quite resolved, leaving a healthy scar. Until the middle of May there were regular reactions with swelling and rise of temperature from 99° to 101°, accompanied by weakness and general depression after each injection, the reaction beginning within 12 hours and lasting 24 to 36 hours. From the middle of May to June 15th no reactions or uncomfortable effects followed, in spite of the very strong doses used and the general condition in no way improved.

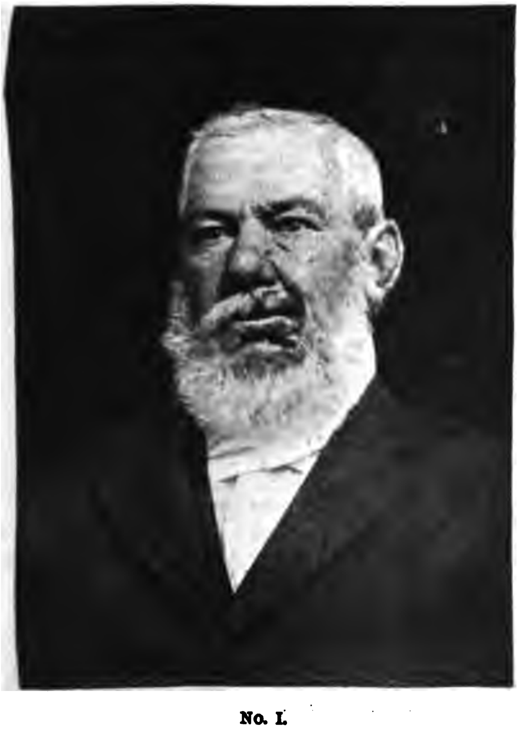
X RAY TREATMENT.

On June 19th, I first applied the rays, protecting the face with a mask covered with lead foil, a hole corresponding to the site of ulcer being left. The eyes were protected with an extra layer of foil. Two coils were used one with a five inch spark, the other with a ten inch spark. An Edison tube and one of Schmidling's bianodal tubes were used; on an average the tube approached to within 3 inches. Up to the present date there have been 35 sittings, varying in duration from five to 25 minutes.

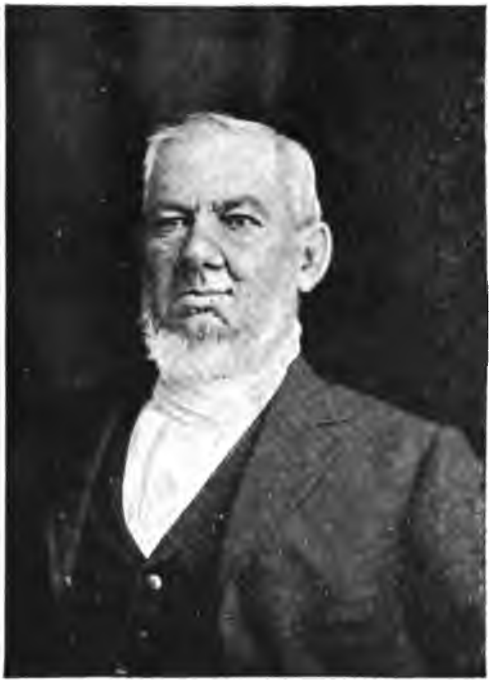
No. 1 photograph, taken August 1st, 1900, after six weeks treatment with the rays, shows the ulcer much improved, the centre filling up, the nodules diminishing, and the edges healing.

No. 2 photograph, of October 11th, after 16 weeks treatment shows the chief ulcer quite healed, well skinned over, and several of the old nodules broken down and healing.

You will note on examining the patient that now all but one of the nodules have healed,



No. I.



No. II.

PHOTOGRAPHS ILLUSTRATING DR. R. BOWMAN'S PAPER ON LUPUS VULGARIS.

that the scar of the mouth ulcer is firm, free from nodules, and covered with an even smooth epithelium, and that a large tubercular mass on the back of his neck is softening and healing, it is now about a quarter of its original size.

SUMMARY.

This case is of particular interest because (1) of its long duration of nine years; (2) the steady advance of the disease, in spite of all hitherto known remedies—*repeated* cutting and scraping operations were performed, and the usual local and medicinal remedies applied over many years.

I am satisfied that the tuberculin treatment did some good up to the middle of May, and the further saturation of the system with the remedy during another month had an inhibitary effect on the injured tissue.

The immediate effect of the X rays was very marked, the reaction following next morning, producing hyperæmia, and swelling of the ulcer or nodule exposed, with the formation of a thick crust, infiltrated with red blood corpuscles. This crust was bathed off, and the surface being painful, was protected with a thick coating of vaseline. *After each* sitting to the X rays, it is interesting to note that the surface of the ulcer was extremely sensitive to cold, and to currents of air, always being painful unless protected by an unguent. I *also* noted that the repeated applications of the rays had no injurious effect on the young, ingrowing epithelium; on no occasion did a part once covered by new skin exfoliate and became bare again.

The early reaction noticed in this case seems unusual, as in most cases hitherto reported the reaction did not take place before the 14th to 21st day. I am inclined to believe that the thorough saturation of the patients' system with tuberculin for several months prior to the application of the X rays had a beneficial effect, probably in lowering the vitality of the infected tissue (as exemplified in the breaking down of the isolated nodules, with formation of pus and absorption). The early hyperæmia with a leucocytosis, the lowered vitality of foreign tissues, coupled with an increased resisting power of the healthy structures, are among the causes that lead to resolution and formation of a sound scar.

To prevent sparking of a small tube when using a powerful coil, I found that if a small piece of copper wire be attached to the anodal terminal of the tube, and curved to a convenient distance from the cathode end of the tube (as found by testing), the excess of sparking will flow between the copper wire and cathode end of tube. The tube can then, with perfect safety, be placed close to the patient.

ROENTGEN RAYS.

BY L. HERSCHEL HARRIS, M.B., CH.M., MEMBER OF THE ROENTGEN SOCIETY OF ENGLAND, HON. SKIAGRAPHER, ALSO TEMPORARY ASSISTANT SURGEON SYDNEY HOSPITAL.

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SINCE November 8th, 1895, when Professor Wilhelm Conrad Roentgen made his memorable discovery at the Institute of Physics in the University of Wurzburg in Bavaria, the Roentgen rays have proved such a valuable adjunct to the science of medicine and surgery that I make no apology for introducing to-night a subject which so far has not been touched upon by this society.

It may be as well to mention that a number of terms have been applied to this subject, viz., rontography, shadowgraphy, skiagraphy, ixography, pyknoscopy, electrography, scotography, kathography, fluorography, actinography, diagraphy, radiography.

Even yet there are many things in connection with the Roentgen rays which are still obscure, but it appears now to be generally acknowledged that they are transverse ether vibrations of exceedingly short period and wave-length, and that they are produced by the bombardment of the antikathode by the highly charged molecules which form the cathode stream. Putting aside for the present the therapeutic uses of the Roentgen rays, their importance, so far as medicine and surgery are concerned, is derived from the power which these ether waves possess of passing more or less thoroughly through the tissues of the body.

According to the conditions of the experiment nearly all the rays may pass through or nearly all the rays may be absorbed so that the screen upon which they are received is either brilliantly lit up or is almost dark. Success in radiography, so far as its practical application is concerned, consists in proportioning the grade of rays to the tissues which they have to traverse so as to produce the greatest amount of contrast. They must, if possible, penetrate some of the tissues completely and others not at all.

It is quite easy to obtain a representation of a thin structure such as the hand, but a more difficult problem presents itself when it is desired to obtain pictures of structures which lie at a considerable depth, of the viscera, the muscles and the other soft tissues which form layers one over the other, and particularly of deeply-buried foreign bodies such as renal and biliary calculi, the absorptive index of which is not very different from that of the tissues which surround them.

For difficult cases such as these it is the best plan before attempting to take a photograph to make a thorough investigation with the screen

We cannot obtain a permanant record with the screen as is the case with a photographic negative, but with a screen it is possible for the observer to seize upon the moment when there is some slight difference in the degree of penetration and a shadow is thrown for an instant upon an otherwise bright field.

Often contracts may be detected in this way which only last for an inappreciable space of time, and often the most valuable information is obtained by watching these changes. A photographic plate, on the other hand, records the sum of all the effects which have been produced since the beginning of the exposure. With a prolonged exposure it is quite possible for the penetrative power of the rays to obliterate all that has been produced before, so that the shorter the exposure and the greater the volume of light the better is the result likely to be.

For this purpose it is necessary to have a hard tube, *i.e.*, a tube with a high vacuum to ensure penetration of the whole thickness of the body and a very short exposure in order that the contrasts might not be obliterated.

An experiment carried out by Dr. Swain, of Bristol, will serve to illustrate what I mean.

By exposing on a single plate various kinds of calculi of nearly uniform thickness to the rays for periods varying from 1 to 16 minutes, he found the following to be their arrangement in order of greater permeability to the rays, viz.:—

1. Biliary
2. Uric acid.
3. Phosphatic.
4. Oxalate of lime.

That is to say, whilst the rays penetrate biliary calculi with the greatest ease, they experience most difficulty in penetrating oxalate of lime calculi.

Dr. Swain then exposed each of the above kinds of calculi, together with a piece of human rib and a portion of kidney. With each increase of exposure the shadows became fainter, until at length, after an exposure of 16 minutes, only the oxalic acid and phosphatic calculi with the merest trace of rib were to be seen.

So the important deductions are that a short exposure may give a better result than a long one, and that an oxalate of lime calculus will be much easier to detect than one of the phosphates or of uric acid.

If the exposure be too long, some of the less dense calculi will disappear altogether.

In taking photographs of calculi, it must be remembered that the respiratory movements will cause a penumbra to appear around them, and that consequently the result will not be so clear as that obtained by the screen. To counteract this influence of respiration upon the calculus Dr. Mackenzie Davidson has contrived an ingenious device. The patient is directed to hold his breath for so long as he conveniently can, and the exact distention of the thorax is noted by means of suitably placed pointers. Then he is allowed to breathe until he has recovered himself, when he is directed to hold his breath a second time with the thorax in exactly the same state of distention. This is repeated as often as necessary, the light being only switched on during the period of apnœa, when the thorax is at rest and the kidneys or liver and the calculus is presumably occupying exactly the same position relatively to the light.

To obtain good results in radiography, the condition of the patient has to be taken into account, for better results are obtained with the thin and anæmic individuals with poor muscular development than with the stout and plethoric subjects with good muscular development.

Already the heart and great blood-vessels and the lungs have been mapped out, and occasionally when least expected an unusual degree of success has been met with. The abdominal aorta has been shown in front of the lumbar spine, the falx cerebri has been seen through the cranium, and the outlines of many muscles have been photographed with unmistakeable clearness. The problem is how to obtain these results at will. So far there is no record of any attempt having been made to effect any changes in the absorptive capacity of the tissues. Some effect may be produced by regulating the amount of circulating blood. The opacity of the bones is due to the salts of lime; that of the soft tissues, in some measure, to the iron contained in the myohæmatin and hæmoglobin. The former is fixed in amount, though it varies greatly in different muscles. The latter is constantly varying. A muscle may be taken either immediately after hard work, when it contains five or six times as much blood as when it is at rest, or in a state of absolute anæmia, by employing an elastic bandage. Such a difference in amount might reasonably produce a difference in absorption, and it is probably owing partly to this, partly to the width of intermuscular septa, and the presence of fat in them, that muscles sometimes stand out with exceptional clearness.

Much more is to be hoped from the manipulation of the tube. (Everyone is agreed that the quantity of light as distinguished from its penetrative power is most important.) It has been found from experience that to obtain the best radiographs of soft tissues it is necessary to use soft tubes, and therefore to use a tube as new as possible. The distance of the tube from the part to be radiographed is also a matter of extreme importance.

It is found that the greater the distance between the two the better the definition. If the tube be too near the part only those objects near the surface next to the plate are given with best definition, whilst the penumbra formed further away obscures any further detail.

It must, too, be remembered that the further the tube from the plate the longer the exposure, and that doubling the distance quadruples the exposure.

THE APPARATUS FOR "X" RAY WORK.

To decide which apparatus is most suitable for "X" ray work is a difficult point to settle.

First as regards to Coil.—Most workers agree that a Ruhmkorf coil, which will give a 10in. spark, is the most serviceable. There are many makers of these coils, and each man claims his own to be the best. They vary chiefly as regards the insulation between the primary and secondary; some makers being most particular to have good insulation, whilst others use no insulation whatever. The coils in most frequent use appear to be those by Apps, Watson, Isenthal, Cox and Schall, and they all give satisfactory results.

The next important point about the coil is the break, and, though opinion seems to have been divided, it is now pretty generally admitted that the best results are obtained by the mercury interrupter. A modified form of platinum interrupter is what is termed the Vril contact-breaker. It was devised by a Mr. King, and is made by Watson and Sons.

The advantages claimed for this break are—that a prolonged contact is afforded, giving time for the thorough magnetic saturation of the coil; that in consequence much less battery power is required than with ordinary patterns; and that the liability to heating of the platinum contacts is greatly diminished, while "sticking" is almost impossible.

Before proceeding further, it may be mentioned that the points to aim for in a good interrupter are—the selection and proper arrangement of the number of makes and breaks per second, the duration of the contact and the suddenness of the break. Amongst the mercury breaks there are numerous patterns, all more or less costly; but one of the latest and best appears to be the jet interrupter, manufactured by Isenthal, of London. He claims that it may be adjusted for any number of interruptions from 100 to 50,000 per minute, and is absolutely noiseless, since there are no reciprocating parts whatsoever. The whole of the mercury is used up uniformly, thus requiring but very seldom any renewal or purification.

The great features, however, claimed for this break are its very high efficiency, its adaptibility to any voltage of the circuit up to 250 volts, and the absence of wasteful rheostats, which are generally required to work coils from the mains direct.

The only drawback to this interrupter is its cost, which is £12 12s.

A most remarkable interrupter has been invented by Dr. Wehnelt, of Berlin, based on an entirely new principle. A glass vessel, filled with dilluted sulphuric acid contains two electrodes of very different sizes, one a large lead electrode and the other a short piece of platinum wire. If such an element be connected with an electrical supply, the E.M.F. of which is considerably higher than the E.M.F. of the cell itself, curious phenomena of light appear with a humming noise on the platinum electrode.

Dr. Wehnelt found that this is due to the current being made and broken with extraordinary rapidity, and when connecting a spark coil with such a cell and a 100 volt supply, he obtained from the secondary terminals of the coil sparks following one another so rapidly that they appeared to the eye like an arc of light. With this arrangement no condenser is needed for the spark coil. With this apparatus a voltage of at least 40 must be used, and the rapidity of the interruptions increases with the E.M.F. used, and amounts to over 1500 breaks per second with a 100 volt supply.

The main objection to this interrupter at present is that the anticathodes in Crookes's tubes become very hot. In small tubes they actually fuse with an E.M.F. of 100 volts in the primary, and it is therefore necessary with an interrupter of this kind to use large tubes only, because they are better capable to stand such a strain.

A tube has been devised with a water-jacket around the anticathode for the purpose of keeping it cool, but the results obtained with it are not sufficiently satisfactory to recommend it, apart too from its cost, which is nearly £7.

Within the past few months an improvement has been made in connection with the "Wehnelt" interrupter, and I have to thank the representatives of Messrs. Siemens Bros. and Co., Limited, of this city, for their courtesy in showing me the apparatus, as well as for a diagram and an explanatory note, which I cannot do better than read to you.

NEXT AS REGARDS BATTERIES.

A primary, such as the well-known bichromate battery, may be used, or, better still, a secondary or storage battery in the form of an accumulator may be used.

An accumulator consists of lead grids or plates, usually coated with a paste of oxide of lead, and immersed in dilute sulphuric acid of specific gravity, 1·15. The battery is usually charged by a continuous current from the electric lighting main.

By the storing of chemical action in the cells the charged battery is capable of yielding a powerful current of great constancy. The chemical process is as follows :—The sulphuric acid causes a thin layer of lead to change into sulphate of lead. An electrical current sent through such a cell produces electrolysis; oxygen appears on the plates connected with the positive pole, and converts the sulphate of lead into peroxide of lead On the plates connected with the negative pole hydrogen appears, and reduces the sulphate of lead into a porous, spongy mass of metallic lead. If the action of the current last long enough, the plates connected with the positive pole get converted entirely into spongy metallic lead. Oxygen and hydrogen, finding nothing left to act upon, escape as gas, and it would be waste to let the current act any longer. In this way chemical changes have been effected by means of an electrical current. We have two different plates now, and the chemical action of the acid produces an E.M.F. If the plates are connected by means of a conductor, an electrical current is started in opposite direction of the charging current. During the discharge the chemical process gets reversed, the plates which had been covered with oxygen during charging get, during the discharge, covered with hydrogen, which combines with the oxyen contained in the peroxide, and produces sulphate of lead. The oxygen generated on the negative plates combines with the acid and changes the metallic lead also into sulphate of lead. As soon as both plates have returned to their original condition, all difference between them has ceased to exist, the E.M.F. stops, and with it the discharging current. The acid, too, has got back its original strength, and thus the process can be repeated any number of times.

STATICAL MACHINES.

The sources of electrical energy hitherto described all require more or less cumbersome apparatus to transform the charge of low potential into high potential discharge needed to excite the "X" Ray tube. Their great drawback in that direction is not shared by the influence or statical machine known as the "Wimshurst" machine, whereby a current is produced of sufficiently high voltage to light any tube to which it is directly conveyed. These facts point to the simplification of means, a direction in which there can be little doubt that future advances in the method of producing Röentgen rays will lie.

Wimshurst's machine is efficient in this class of work, and is the only type of statical machine that has stood the test of prolonged experience.

The special advantages are that it is at all times freely self-exciting and ready for use by merely turning the handle, while it produces a steady, continuous flow of electricity of such a character that the charge may accidently be passed through a patient without causing injury; the direction of the flow of electricity does not change when once started; the voltage is sufficiently high to excite tubes of the highest resistance; for screen work the lighting is constant; lastly, there is no need for a costly and troublesome system of accumulators, rheostats, coils, contact breakers, and other complicated appliances. It seems tolerably certain that the apparatus of the near future, more especially for army and navy work, will be the Winishurst machine, made probably with plates of vulcanite instead of glass. There is, moreover, a growing tendency towards its use in ordinary hospital and chemical work. In America it has for some time past been spoken of in enthusiastic terms by various authorities.

In the *Scientific American* of June 17th, 1899, will be found an interesting description and illustration of a large static machine for "X" ray work by Francis B. Williams, M.D., Boston.

TUBES.

The selection of tubes has always struck me as being one of the most difficult and important points in connection with "X" ray work.

Realising this point, about a year ago I wrote to the editor of the "Archives of 'X' Ray," Dr. T. Moore, and his answer was as follows :

DEAR SIR,—In answer to your query, I wish I knew which is the best tube to use. I have tried a great many kinds, and I think Cossar, of Farringdon Road, is the best English maker. Mr. McKenzie Davidson, who is very successful, swears by one made by Cossar with an osmium anticathode; but osmium cannot be obtained now, I believe. I have tried two, and did not do well with them, though perhaps that was my own fault. The last two tubes I have had I bought from Leslie Miller, of Hatton Garden. They are of German make, and have been very satisfactory. Isentall and Potzler, of Mortimer Street, also sell very good tubes; also Cox, of Cursitor Street.

The only way to get a good tube is, I believe, to "try before you buy." I always go and try them on the screen, and the sellers never object. Some time ago I tried twenty at Cossar's before I got a real good one—none were absolutely bad, and at Miller's only one out of eight was very good.

To Choose.

1. The pencil of light from the cathode should strike on the anticathode at a point as near the middle as possible.
2. The light should be all in front of the anticathode, and as little as possible behind it.
3. There should be no (a very little) blue behind the anticathode.
4. The connections should be well made at either end of the tube. It is preferable that the ends should have brass caps, stuck to the tubes with plaster of Paris, or some such thing.
5. I always choose a tube which will show well on the screen with six inches (not longer) spark, but it does not always follow that the best for screen work are the best for photography.
6. Look out for flaws in the glass, as they are weak points.
7. In choosing a tube by the screen I am not satisfied with one that shows merely the hand and arm, but like also to see the ribs and hip joints, or femur at all events.

The advantage of the large German tubes is that they are strongly made, and last for a long time. The vacuum of the tube generally gets higher with use, and when it won't work well any longer, it is worth while to have it re-exhausted, if it has been a good one.

Yours very truly,
(Sgd.) T. MOORE,
Editor of "Archives of X Ray."

4 Lee Terrace, Blackheath,
30th September, 1899.

During the past three years I have used about half-a-dozen varieties of tubes, and can speak well of them all, excepting the early ones that were made, and which were made too small. A tube with which I have obtained excellent results is a 'Self-Regulating,' one made by Messrs. Watson and Sons."

The essential novelty in this tube consists in the auxiliary arrangement for altering the vacuum. A small bulb in an offshot of the tube gives off vapour from some caustic potash when heated, and re-absorbs it when cool. There is an adjustable arm to this auxiliary tube.

The anode of this auxiliary tube is connected to the anode of the main tube. When put in action, the resistance of the main tube being high causes a current to pass through the auxiliary tube and across a small gap.

The discharge from the cathode of the auxiliary tube heats the bulb and drives out the vapour, thus lowering the vacuum. This action continues for a few seconds until a sufficient amount of vapour has been driven into the main tube to permit the current to go through it. After this only an occasional spark will jump across the gap to maintain the tube at a constant vacuum.

Another very excellent tube is Watson's "Penetrator." Mr. Schmidlin has supplied a number of German tubes, and they have all given very satisfactory results, especially in cases where a low vacuum has been required

It often happens that the vacuum of a tube becomes so high that the current will not pass through it. In such a case, by applying the flame of a spirit-lamp to the tube this condition is immediately rectified.

It is supposed that this condition is brought about not only by a certain amount of gas occluded in the glass being liberated, but also, or mainly perhaps, by the fact that the heat promotes activity among the molecules, and that it is this activity which enables a current to pass and form cathode rays, the *fons et origo* of Roentgen rays. These cathode rays are supposed to be electrified ions or atoms in rapid progressive motion.

Whilst on the subject of tubes, an interesting phenomenon may be mentioned, which I have seen occur on several occasions. It is the so-called "singing" anode. This, I believe, was first noticed by Mr. Webster, F.C.S., of London, and he noticed it to occur when the tube was active and penetration good. The favourable condition, he stated, was a singing anode without much phosphorescence. It is sometimes thought that two notes, "G" and "B" can be heard.

It requires a great amount of experience and judgment to know which is the best tube to use for the case under examination. Tubes should be trained and kept for certain purposes in much the same manner as racehorses. The plan I always adopt is to have the tubes placed on a shelf in order of vacuum, that the lowest vacuum, or softest tube, and consequently least penetrating ones, comes first, and the highest vacuum, or hardest and most penetrating one, comes last. Then I know exactly that for a certain part to be examined such a tube on the shelf is the most suitable. The tendency is for all tubes to increase in vacuum with increased usage, and when the vacuum becomes too high the current will not pass through, and so no "X" rays are produced. There are several devices for lowering the vacuum, the most usual one being to heat the tube, the place selected generally being behind the cathode. Other tubes have anodes constructed for this purpose, whilst some of the latest tubes have separate terminals for the current to pass through for a short time.

The penetrative power of tubes can be accurately measured and compared by means of a simple instrument termed an "actinometer." Twelve squares of tinfoil of various thicknesses are placed on a thin board. The first square consists of one sheet of tinfoil only, in the second square two sheets are put one on the top of the other, and so on, and in the twelfth square there are twelve sheets of tinfoil. Each square is fitted with a figure cut out of sheet lead. If this board is placed between the tube and fluorescent screen, or photographic plate, the higher the value of the figure visible the better is the penetrating power of the tube, and *vice versa.*

INTENSIFYING SCREENS.

The efforts of all workers in "X" ray photography have for some time past been directed towards the devising of means for shortening exposures. One means towards this end is by improvements in tubes and manipulation, but another has been in the employment of screens of flourescent salts to intensify or hasten exposure. The term "intensifying screens," which has been applied to these devices, appears a little inappropriate and inexact. Of the various salts that have been employed for this purpose only one, viz., calcium tungstate, seems to have survived the test of experience, and in this, as with all other prepared screens, even where success has been attained in the shortening of exposures, there has been experienced one great drawback to their use, viz., the impossibility of getting rid of the granular appearance produced by the screen upon the photographic plate.

It is important that the screen should always lie close in contact with the sensitised surface, else want of sharpness results. This is best attained by the use of pliable and not stretched screens.

FLOURESCENT SCREENS.

The flourescent screen is a most important part of the apparatus necessary for "X" ray work.

Its use ought to quite supersede the old and barbarous but aforetime absolutely necessary practice of diagnosing fractures of the bones by obtaining crepitus.

By its aid, also, it can be ascertained whether a fractured limb, after it has been set, is in proper position, and whether a dislocated joint has been properly reduced, and the condition of the heart and other internal organs, can in many cases be ascertained.

For some time past I have had two screens in use manufactured by Messrs. Johnston, Matthey and Co., of Hatton Garden, under the direction of Mr. Gotz, and they have given every satisfaction. These screens are coated by hand, contrary to an opinion sometimes held that to obtain the best results they should be coated by machinery.

As to photographic plates used, I think I may safely say that most of them give good results. I have tried every maker on the market, and though my results now are better than with former plates, I think this is mainly due to extra experience in manipulation of the apparatus.

Ilford or Marion plates are very good, and the slow ones give better detail than the more rapid ones. Lumière plates are excellent. These possess a double film, and take longer to develop, but at the same time are very expensive.

Cadett Lightning and Eastman's Plates are also very good. Lately I have been using Imperial Specials, and I am very satisfied with the results.

There are many others, but this, together with their manipulation I shall leave, as this is fully dealt with in any book on Photography.

The latest product is the "Cadett" "X" ray paper. This important invention is said to offer great advantages over plates:—(1) Great reduction in exposure as compared with the most rapid dry plates, about one-eighth of the usual exposure being all that is required; (2) Freedom from the risk of breakage; (3) adaptability; (4) portability.

METHOD OF LOCALISATION.

This was one of the very first things to attract the attention of the operators, and many forms of apparatus have been devised for this purpose. Among the principal ones may be mentioned those of Mackenkie Davidson and Hedley, the former being most elaborate and exact, but at the same time costly. The main drawback is the time occupied in manipulation, though if properly worked, a foreign body can be localised to the $\frac{1}{100}$th part of an inch.

In all methods of localising the position of a foreign body which is buried in another body, it is essential that two distinct skiagrams should be taken, though it is convenient to have the two pictures superimposed on the same plate.

As is well known, the position of the "X" ray tube must be changed in the interval between taking the first or second pictures and the distance through which the focus has been moved must be ascertained.

Further, it is essential to know the points on the plate where it is met by lines drawn perpendicular to it from the focus.

In all existing methods of localising, the position of these points is ascertained by the use of a plumb-line, and in order to secure any accuracy in the results the plate must be levelled before the skiagrams are taken. The use of plumb-lines is at all times "fiddling" and annoying, and is specially so when the point from which the plumb-line ought to be suspended is an invisible "focus" situated somewhere on the anode plate in the middle of a glass bulb.

Having mastered the difficulty of the plumb-line, there remains in most methods the further trouble of stretching two fine threads and measuring the position of the point where they cross one another. The worries attendant on the manipulation of plumb-lines and threads are reduced to a minimum in such a neat apparatus as that designed by Dr. Mackenzie Davidson, but the following method devised by Frank R. Barrell, M.A., B.Sc., Professor of Mathematics, University College, Bristol, will be welcome to those who find the operation of ruling a few lines and doing a simple addition, multiplication and division less trying to the nerves than delicate drawings with threads.

The method requires no plumb-line, no threads, no levelling.

The apparatus consists of two metal cylinders simply. These are placed upright on the plate during the exposure.

The shadows thrown by the cylinders are utilised to locate the position of the focus on the tube.

After the first excitation the tube is shifted and the cylinders are shifted towards the opposite end of the plate, and then the tube is again excited, giving rise to the second set of shadows from the foreign body and cylinders.

Lines are ruled along the edges of the shadows of the cylinders and produced till they meet. This point on the plate is perpendicularly beneath the focus of the tube during the first exposure.

By a similar ruling with the other shadows the focus of the tube in the second position is found.

By drawing a line from each focal point to each shadow of the foreign body, the point of intersection shows the vertical position of the foreign body. The height above the plate of the foreign body is found by the formula $x = \frac{d}{d+l} h$, where d = displacement of shadow of foreign body, l = displacement of tube, and h = distance of focus from plate. These results have proved accurate to within 3 and 4 hundredths of an inch.

I have experimented with this method, and my results have been very satisfactory.

DIFFUSION OF RAYS.

Dr. Mackenzie Davidson deals with this subject in a paper read before the Roentgen Society this year. He says, "With reference to the phenomena of diffusion of the rays, which generally interfered with good definition where long exposures were needed, as in cases where the hip or kidney were concerned, it will be found that all parts of the tube emit "X" rays.

"If a screen of thick metal, about an inch wide, were placed before the tube, an image could be obtained from a metal rod placed near the plate from the rays emitted by the two halves of the bulb. If a cross of pieces of lead, about one inch wide, were placed before the tube, an image could be obtained from each of the four quadrants of glass left unshielded if a small ball or disc of metal were placed a short distance from a photographic plate, and held opposite the side on which the lead cross was placed.

To cut off these secondary rays a mask or hood ought to be employed, having in it a small hole through which the rays from the anode alone would pass, while nearly all the rays from the glass were stopped. Better definition might be obtained from a tube shielded in this way. The mask should be made of some insulating material, such as plaster and sealing wax.

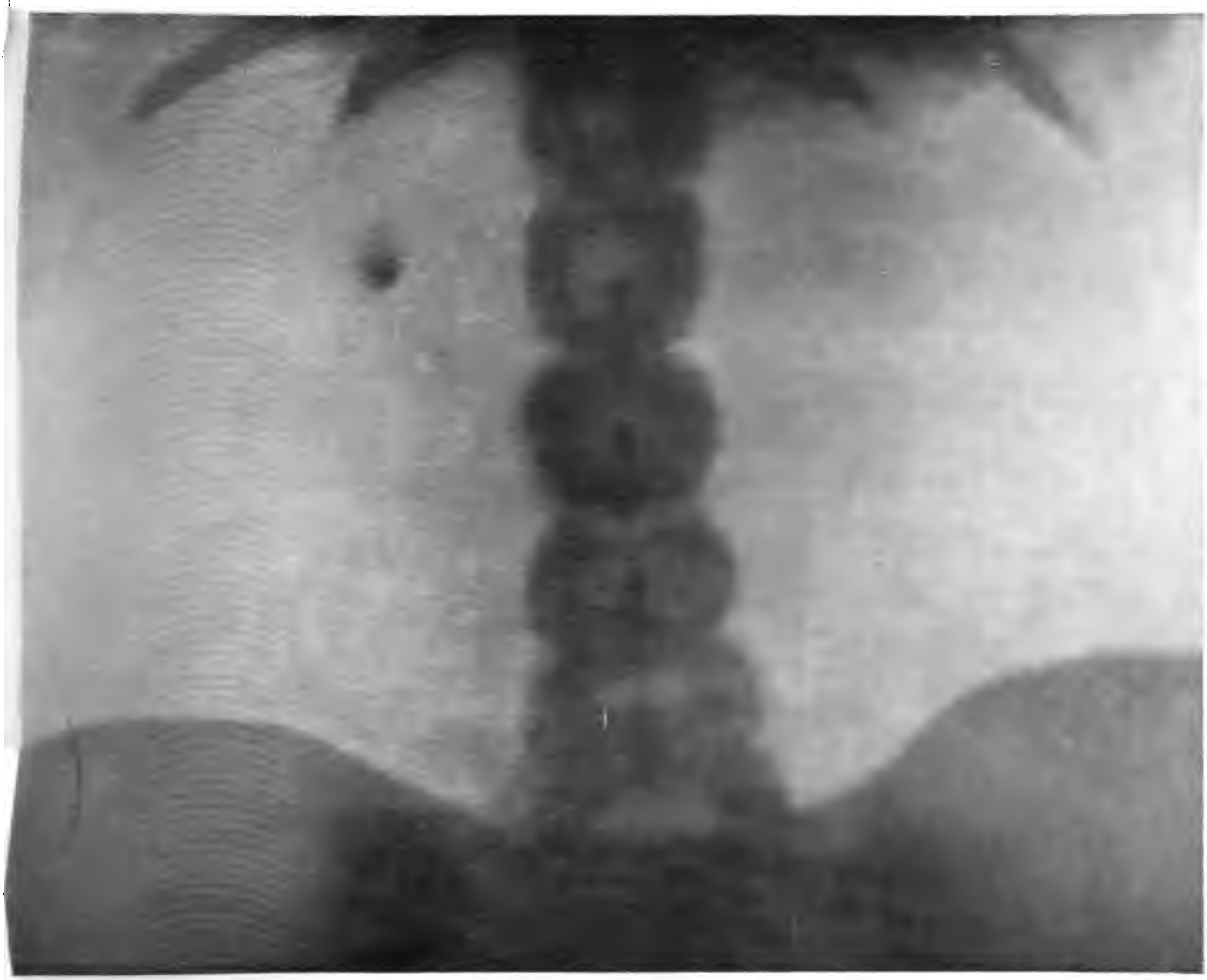
INTERPRETATION OF SKIAGRAMS.

One of the most important considerations in connection with radiography is their correct interpretation, and it is only after examining some hundreds of results that proficiency is attained. Most reliance should always be placed on the interpretation of the negative for many faint shadows may appear here which in a finished proof would not be brought out distinctly.

Again, too many dodges can be employed in printing, making things appear which were never present on the original plate.

A very able paper was read by Dr. Chisholm Williams before the Society in January of this year, which I shall condense as much as possible.

ILLUSTRATING DR. L. HERSCHEL HARRIS'S PAPER ON ROENTGEN RAYS.



Skiagram showing Renal Calculus, size of small pea, removed by Dr. Wm. Chisholm, at Sydney Hospital.

"We are all familiar sufficiently with the general contour of bones and joints from our study of them in the dissecting-room, but when considering skiagrams we have to deal with shadows, which behave, when produced by the 'X' rays, exactly similar to those produced by ordinary light; that is to say, they are subject to more or less distortion, according to the distance of the bones from the sensitized surface and the position of the source of light—the focus tube.

A skiagram of a screw-board with a number of screws placed upright in it at invervals show in a very simple manner the distortion that is produced. A sixpenny-piece is placed directly under the anode on the top of the centre screw-head, and all we see is a plain disc and no portion of the screw, but at a distance of a few inches the thread of the screw shows; that is, the image is splayed outwards from a centre immediately under the anode.

In taking the hip-joints from a central point, there must of necessity be distortion of the socket to a certain extent, the neck to a great and the tuberosities to an even greater still.

At the congress of the German Society of Surgery at Berlin, in April, 1898, Hoffmeister showed a number of skiagrams of the same

normal adult pelvis from various points of view, which gave various false appearances of deformity of the pelvis and femurs, produced by the tube being placed at several points above the subject, and by altering the distance between the tube and the sensitized surface.

The majority were very exaggerated, and such results would only now be produced by an exceptionally careless or ignorant operator.

It is said that a certain distinguished surgeon once read a paper on a case of congenital dislocation of the hip, illustrated by means of a skiagram. It was ascertained in this case that the tube had been placed low down the thighs. The next day another skiagram was taken, and the hip-joint was found to be normal.

In concluding his remarks on this subject, Dr. Williams states that it is necessary that all "X" ray workers should, firstly, have a fair knowledge of anatomy, more especially of joints and bones, and secondly, have a system for the skiagraphing of the several parts of the body.

This system should be known to surgeons, so that they and other operators would be able to adequately interpret the work of any particular operator, just in the same way as all reporters using Pitman's shorthand can easily interpret each other's work."

(To be continued in next issue.)

We have received from Messrs. Burroughs, Wellcome and Co. a specimen of "Tabloid" (Ophthalmic) Euphthalmine Hydrochloride, gr. 1/40, which they are now issuing. Euphthalmine, when applied to the conjunctiva, produces rapid, full dilatation of the pupil, with moderate or slight disturbance of accommodation, and no change in intra-ocular pressure. "Tabloid" Euphthalmine Hydrochloride produces an effectual dilatation in twenty minutes' time. The effect appears to be at its maximum about one hour after application, and disappears entirely in from six to eight hours, frequently in a much shorter period.

We have received from Messrs. Burroughs, Wellcome and Co. a sample of "Enule" Lead and Opium, which has been introduced as a convenient means of obtaining the astringent and sedative effects of lead acetate and opium in the rectum. Its use would appear to be indicated in the treatment of dysentery. Each "Enule" Lead and Opium suppository contains—Lead acetate, 3 grs.: powdered opium, 1 gr. The general advantages of "Enule" Rectal Suppositories have already been brought under notice.

Private Hospital.—It will be seen by an announcement in our advertising columns—(page xiv.)—that still another private hospital has been added to the many already existing in Sydney. Dr. W. E. Warren is the medical director of the new establishment, which is to be known as "St. Agnes Private Hospital for Medical and Surgical Cases."

Dr. G. T. Hankins' article on "The Preparation of Suprarenal Extract," which appeared in the *Australasian Medical Gazette* for 20th July, is referred to in *Medicine* for November, 1900.

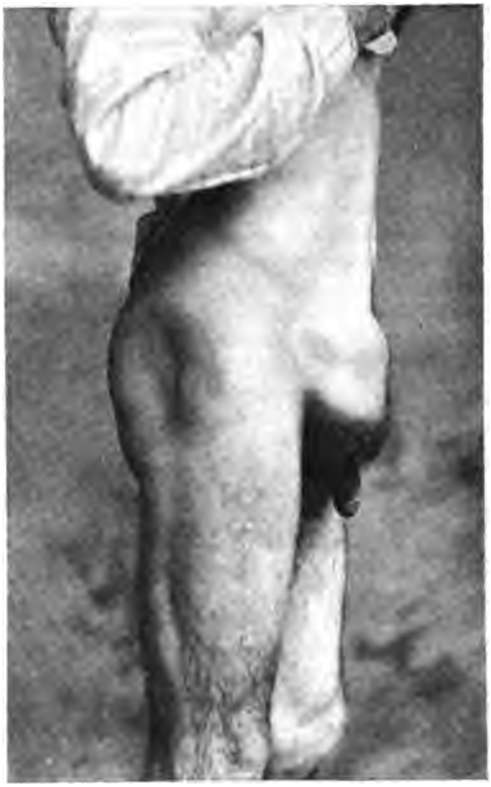
CASE OF SARCOMA OCCURRING IN AN ECTOPIC TESTIS, COMPLICATED WITH BILOCULAR ENCYSTED HYDROCELE OF THE EPIDIDYMIS.

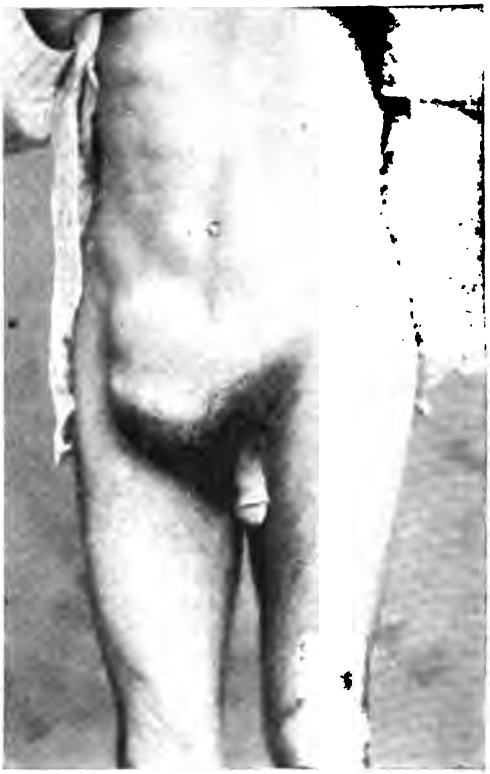
By John M. McDonagh, M.D. Brux., M.R.C.P. Lond., F.R.C.S. Irel., Sydney.

W.C., aged 40 years, unmarried, was admitted to private hospital on account of a large painful tumour over the right inguinal region. Inquiry revealed no family history of any hereditary disease. Both parents living, also five brothers and six sisters. Until present illness has been generally healthy, following agricultural pursuits. No venereal history. He states that when six years old he noticed only one testicle in the scrotum, the other being movable in the region of the groin without causing pain. It, however, began to cause him pain at 14 years of age, especially when riding on horseback. During the past 18 months the upper portion of the growth has increased in size, becoming latterly more fixed. Five months ago, feeling tired whilst harvesting, he laid down on some bags in a shed with a concrete floor, and fell asleep; when a passing school boy threw himself over him, falling heavily over the retained testis. The man awoke suffering agonising pain and became collapsed. When the pain subsided, he noticed the groin swelling had considerably increased, but after a time it somewhat reduced in volume. Last July the tumour was tapped, and about a quart of blood-stained fluid was removed. This was soon after sustaining the injury described. Shortly after the tapping, the testicle was about the size of a hen egg. The sac, however, refilled, and in about a month the swelling was about as large as previously, and this has been steadily increasing in size up to the present time. He has lost about seven pounds in weight during the last six months, and latterly the pain, sharp and lancinating in character, has been much intensified.

Patient first seen on September 22nd, 1900, anæmic, fairly well nourished, only able to walk in a stooping posture, owing to weight of a tumour in his right groin, which was resting on the upper part of Scarpa's triangle. Dragging pain and sense of weight, with inability to walk or take any form of exercise without causing much discomfort.

On examination, a large tumour with a deep sulcus, running obliquely downwards and inwards, about its central portion, was found occupying right inguinal region, fluctuating





superiorly; whilst a solid ovoid mass could be felt inferiorly, below mid portion of Poupart. Contour irregularly ovoid, viewed anteriorly, pyriform on latteral aspect. It extended to the left one inch beyond the mesial line; to the right as far as the anterior superior spinous process of ileum; above, to about one inch below level of umbilicus; below, two inches beyond Poupart's ligament, and extending across its entire length. Superficial veins engorged over growth and right testicle absent from scrotum, the left being of normal size. A diffuse impulse on coughing, especially marked supero-internally. Tumour immobile, with universal dulness and opaque to transmitted light. Castration recommended, and patient consenting, operation performed on October 1st, 1900. Chloroform was administered by Dr. A. Houison, and Dr. W. Chisholm assisted me. A free incision was made obliquely downwards and inwards, extending from anterior superior spinous process of ileum to the pubic spine. On reaching the external oblique muscle, its walls were found to be very tense and attenuated, whereas the aponeurosis was thickened. An incision was made over the inguinal canal, including the external abdominal ring, and the tension being relieved, the growth was freely exposed to view, revealing its connections with surrounding parts. The testicle was firmly adherent to Poupart's ligament, at a point external to the external abdominal ring. The entire length of the canal was occupied by a fluctuating tumour, springing from the upper and posterior part of the testicle, having a deep sulcus corresponding to the position of the external abdominal ring, whilst the highest portion of the growth extended beyond the internal ring, a constriction being formed at its site, assuming an hour-glass shape. There were numerous hæmorrhagic patches scattered over the growth, the most pronounced being situated over intra-abdominal part of the cyst. Very firm adhesions were found with surrounding parts. The walls of the hydrocele were very thick and fibrous. The cord was invisible at this stage, but on downward traction being made it came into view. It was very short, and, beyond increased vascularisation, was normal in appearance. A clamp was applied and division effected, shortly after which the patient suddenly collapsed, his condition becoming very serious. Strychnine was given hypodermically, and, reaction occurring, administration of the anæsthetic was continued, and the remaining adhesions, very dense at lower and inner portion of the growth, being separated, the tumour was removed intact. The vessels of the cord were tied separately. There was protrusion of the intestines, through the enlarged internal abdominal ring, which was pursed up by means of a continuous chromic cat-gut suture, the peritoneal margins being carefully approximated. Silk-worm gut and horsehair sutures were used for the skin wound, and a drainage tube inserted. During anæsthesia, a moveable indurated mass could be felt near the upper border of rectus muscle on right side, about one inch above the level of umbilicus It was found that the portion of the tumour situated between the internal and external abdominal rings had forced its way upwards between the external and internal oblique muscles, whilst the intra-abdominal part was extending between parietal, peritoneum, and transversalis muscle. Weight of tumour, 2½ lbs.

Progress of Case.—Operation performed at 9 a.m., October 1st, 1900; 1 p m. temperature 99·2°; 5 p.m., temperature 100·6°; 8 p.m., 101°; 11 p.m, 102°. Very little vomiting after operation. Slept from 1 till 4 p.m. Urination 4 p.m. and 10 p.m. without catheterisation. Slept from 7 till 10 p m.

October 2nd.—Highest temperature 2 p.m 102·2°; lowest, 11 p.m. 101·8°, restless night, vomiting 7 a.m. and 9.30 a.m., sleeping from 1 till 5 p.m., passing urine freely. Slight attack of hiccough at 11.30 p m.

October 3rd.—Highest temperature 2 p m., 102·4°, lowest 5 a m., 101°. Slept from 12 till 5 a.m. Hiccough at 5 30, 11.15 a.m., 12 30, 1, 1.30, 2, 3, 4, 4.30, 5.30, 6, 8, 9, 9.30, 10, and 11.30 p m.

October 4th.—Highest temperature 5 p m., 102·8°; lowest, 8 p.m., 101°. Hiccough, 1.30, 4.30, 6 a m., 2.15, 6.15, 7.30, 8.15, 8.35, 9.15, 9.30, 10, 11.15, 11.30, 11.50 p.m. Slept 11 till 1, and from 1.30 to 4.30. Complained of frontal headache 7 p.m., followed by epistaxis, moderate in amount. Passed urine freely.

October 5th.—Highest temperature, 102·4° at 5 a.m.; lowest, 100°, 5 p.m. Hiccough, 2.30, 3.20, 3 45, 4.30, 5, 5.30, 6.20, 6.45, 7.15, 7.45, 9.15, 11, 11,45 a.m , 12.30, 1, 1 30, 3 30, 3.45, 4.30, 5, 6.45, 6.30, 7.15, 7.45, 8 30 p.m. Slept at intervals between attacks. Tongue dry and coated.

October 6th.—Highest temperature 2 a.m., 100·4°; lowest, 2 p.m., 99·4°. Slept two hours in the forenoon; very restless till 5 a.m., when slept 1½ hours. Hiccough 1.30 and 2.30 a.m.; considerable abdominal distention and pain at 6 a.m. Catheter passed, and 32 ounces of urine drawn off. Six grains of calomel given, which caused several watery motions during day. Distention more marked at 10 p.m., when the catheter again passed, 35 ounces of urine coming away. Slept two hours afterwards.

October 7th.—Highest temperature 100°, 8 a m.; lowest, 98·4°, 6 a m. Distention still still the same. Repeated calomel. Saline cathartics ordered since yesterday; several evacuations; 30 ounces of urine drawn off by catheter at 11.30 p.m.

October 8th.—Highest temperature, 99·4° at 5 a.m.; lowest, 99 6° at 5 p.m. Passed a good night. Had repeated evacuations, and able to micturate freely. Abdominal distention subsiding, and pain disappeared. Tongue moist.

October 9th.—Highest temperature, 101·4° 8 p.m.: lowest, 5 a.m., 99°. Slept at intervals. Distention less, no difficulty in micturition.

October 10th.—Highest temperature, 101·4° 11 p.m.; lowest, 9·88° 5 a.m Distention almost gone, and taking nourishment freely. Tongue quite moist.

October 11th.—Highest temperature, 99·8° 5 p.m.; lowest, 99·6°, 2 a.m.

October 12th to the 16th.—Highest temperature, 101·6° 5 p.m. on 16th; lowest, 98·6°, 5 a.m.

October 14th.—A fluctuating conical pouch protruded into right scrotum, skin over which is red and tender; no rigors.

October 17th.—Temperature 2 p.m., 103·2°. Swelling in scrotum, where testicle absent, more marked; very tense and painful. Incision made over the part, and two ounces of pus evacuated, drainage tube inserted.

October 18th.—Pain over scrotum gone. Temperature 2 a m., 102·4°; 11 p.m, 100·6°. Passed a good night. Micturition free, tongue cleaning and moist.

October 19th—Temperature 5 p.m., 100·8°; 8 a.m , 99°.

October 20th to 23rd.—Temperature 98·4° to 100·6°.

October 24th.—Temperature 101°. Very restless all night; vomiting and pain referred to wound.

October 26th.—Temperature, 99.8° 2 a m.; 100° 11 p.m. Passed a good night.

October 27th. —Temperature fluctuated during day from 99·8°, 5 a.m., to 101·6° 8 p.m.

October 28th to 31st.—Temperature, 98·4° 5 a.m. 28th; 100·8°, 8 p.m. 31st. No rigors, tongue cleaning, taking nourishment freely, and sleeping well. Absence of abdominal pain and distention, micturition normal.

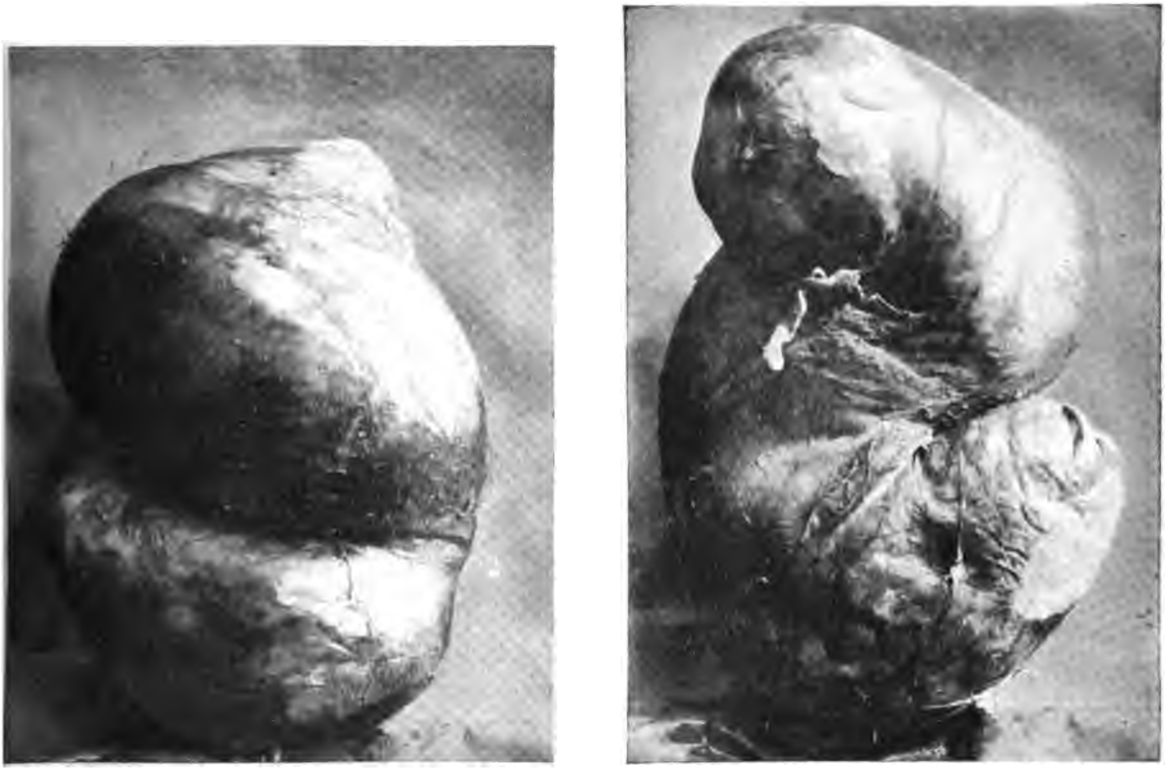
November 1st to 27th.—Temperature 98.4° or thereabouts, gaining weight, wound healed, no tendency to hernial protrusion. Latterly a sinus formed delaying union.

Anatomy.—Encysted hydrocele is very rarely met with in the testis; but it is not uncommon in connection with the epididymis. In the former situation the cyst is quite small, and is situated close beneath the tunica albuginea, probably arising from dilatation of a tubule. Encysted hydrocele of the epididymis occurs either in *small cysts,* frequently multiple, and found usually in persons over 40 years of age, and *large cysts,* usually single, varying in size, though rarely containing more than two or three ounces, and met with generally in men between 25 and 50 years of age. The small cysts are unimportant clinically. They rarely occur till after middle life, but then become very common, being present, according to M. Gosselin, in two-thirds of the testicles examined. These cysts have a distinct fibro-cellular wall, and are lined with epithelium, If spermatazoa are present, which is rare, the fluid is turbid. According to Lewin, spermatozoa are found in about 8 per cent of the cases. These small cysts originate either (*a*) in distention of traces of Müller's duct (especially the hydatid of Morgagni), which have not been obliterated, or (*b*) as involution cysts connected with changes taking place in the epididymis of advancing life (MM. Monod and Arthaud), arising in ampullary dilatations of the ducts of the epididymis produced by the unequal dragging and compressing effects of sclerosis of the intertubular connective tissue, thus resembling cyst formations in the kidneys and the cystic degeneration in the mammary gland of women past middle life. The large cysts are usually single, though two or three may exist in the same organ. They vary much in size, but there are cases in which they have by their size obliterated the tunica vaginalis and compressed the testicle, and some few are recorded from which a pint and a half to over two pints of milky fluid have been evacuated (*Medical Times and Gazette,* 1853, vol i., p. 629, and *Lancet,* 1884, vol i., p. 842). They are situated outside, *i.e.,* behind the tunica vaginalis, though they very often project into the cavity of that sac. They usually contain a limpid, alkaline, colourless or opalescent non-albuminous fluid; but occasionally it is brown and mucoid, probably from a former extravasation of blood. The fluids from vaginal hydroceles, on the other hand, are rich in albumen, and contain fibrinogen. The cysts, when of long standing, are lined with pavement epithelium. The large cysts may be met with at any age after the 25th year. They may originate in various ways, thus:—(*a*) Retention cysts due to dilatation of a seminal tube from some obstruction in the vas deferens (Liston, Luschka); (*b*) as a new formation in the connective tissue between the tubes of the epididymis subsequent on the rupture of a seminal tubule and the escape of some drops of seminal fluid; (*c*) the cyst may be formed originally in the connective tissue, and by gradually enlarging may cause subsequently the rupture of a seminal tubule, and thus the entrance into the cyst of spermatazoa (Curling); (*d*) the cyst may arise from the distention of certain fœtal relics; (*e*) dilatation of the lymph spaces. The fœtal structures from which cysts of the epididymis arise are:—(1) The paradidymis or organ of Giraldes, the remnant of glandular portion of Wolffian body; (2) the ducts of Kobelt, which are remnants of the tubules of the Wolffian body situated in the globus major; (3) the vestiges of the duct of Müller, part of which is represented by the hydatid of Morgagni; (4) the vas aberrans of Haller.

Signs.—Encysted hydroceles are slow, painless growths, and are usually discovered accidentally. They rarely become larger than a walnut, the largest originating in connection with the globus major. A sudden increase in size may result from injury, causing hæmorrhage into the cyst (encysted hæmatocele). The cyst is usually very tense, appearing to be solid. It moves with the testis and cord, but not independently of them. If the cyst is multilocular, it may be irregular in outline, but it is usually rounded or ovoid. In the present case the pain was referred to the region where the testicle was anchored, below and in front of the hydrocele, no pain being felt over situation of the latter. History of injury, subsequent withdrawal of blood-stained fluid and refilling of sac, tension and conformation of cyst, warrant the conclusion that there was a hæmorrhage into a previously existing encysted hydrocele of the epididymis.

DIFFERENTIAL DIAGNOSIS.

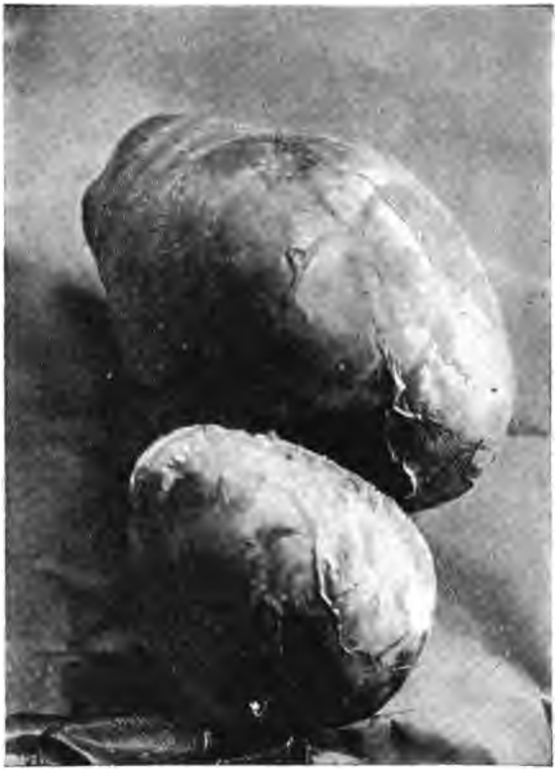
Hæmatocele.—Opaque, firm, non-fluctuating, sudden onset, discolouration of skin (if recent); decrease in size and increase of induration after onset; history of injury; rapidly succeeded by swelling; contour round; solid and heavy. In old cases, especially slow growing, diagnosis from new growth extremely difficult, for in both cases there may be a traumatic history. In doubtful cases an explanatory puncture or incision should be made before castration is performed; if the hæmatocele is punctured dark, altered blood will escape, and the flow will continue for some time. Involvement of the cord favours new growth. *Hydrocele.*—Translucent, elastic to the touch, uniform, fluctuating, slow onset from below upwards; no discolouration of skin, painless; freedom of external abdominal ring; absence of impulse on coughing; pyriform, percussion dulness. *Hernia.*—Increases from above downwards; diminishes or recedes in recumbent position; no thrill unless sac contains a large quantity of fluid, frequently in part or wholly resonant on percussion. When the hernia contains omentum, and is entirely dull on percussion, it feels uneven and nodular, not uniform like hydrocele; impulse on coughing; pendulous; skin over it not tense. Hydrocele can be pressed bodily towards the perinæum, and springs up again when released. Hernia cannot be made to do this; non-translucent (except very rarely in children); upper part of cord obscure, but testicle readily made out. It is between large hæmatoceles of long standing, and irreducible scrotal omental herniæ, that there will be most difficulty of diagnosis; but in most of such cases of hernia there has been a time in their course when they were reducible. The association of hydrocele with hernia is by no means uncommon, and if the latter be irreducible the existence of the hydrocele may be overlooked. Congenital hydrocele may extend up into the canal, but it is slowly reducible without the characteristic slip and gurgle which indicate the reduction of a hernia, and, when the patient assumes the erect posture the sac slowly re-fills. Infantile hydrocele similarly extends to the canal, but is irreducible. *Carcinoma and Sarcoma.*—Exciting cause frequently some form of injury; occur between 25 and 45; carcinoma almost unknown in infancy and boyhood. Sarcoma: Childhood as well as young adult and middle life; rapid growth; often painless, and as long as tunica albuginea remains intact



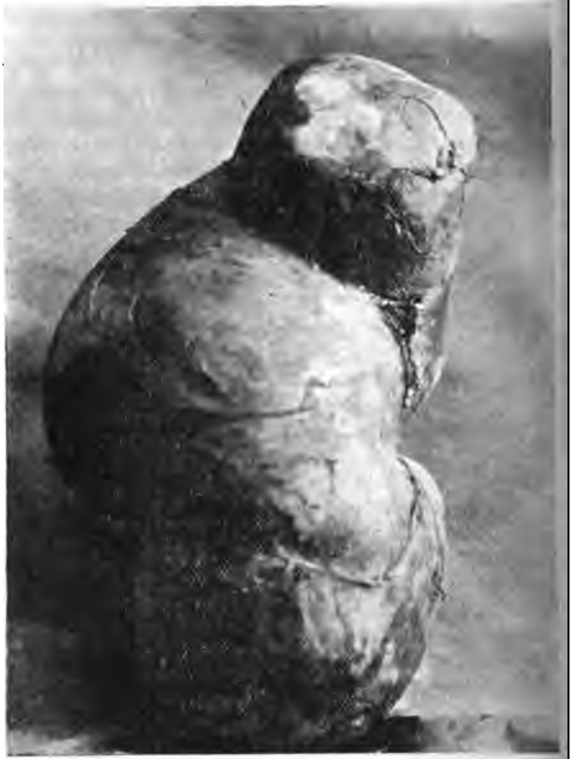
ANTERIOR VIEW. POSTERIOR VIEW.

These illustrations are [illegible] of actual size.

the tumour, though large, retains the normal shape of testicle, hence frequently regarded as inflammatory, and castration delayed too late to be of much benefit. As a rule the growth is firm at first, and becomes softer as it increases. A feeling of weight and dragging; covering of the testis stretches greatly, then yields, and ultimately, if castration is not performed, a fungus hæmatodes is developed and rapidly increases and bleeds. The cord enlarges at first from turgescence of blood vessels subsequently from infiltration of the tissues by new growth. Lower extremities may become œdematous from pressure by the affected pelvic and lumbar glands upon the iliac vein and inferior dena cava Fatal issue usually from the invasion of some of the abdominal organs, from lung complication, or occasionally from exhaustion, induced by discharges, sloughing, and hæmorrhages which attend a fungus hæmatodes. Carcinoma and softer varieties of sarcoma are only distinguishable by the microscope. The former more quickly invades the cord than the latter. *Tubercular Orchitis—Syphilitic Orchitis—Dermoids of the Testicle.*—Simple orchitis, or even hydatid disease have to be eliminated. There is a risk that some of the forms of orchitis may be mistaken for one of the firmer and more slowly growing sarcomata, but the history of syphilis in some cases, the antecedent symptoms of inflammation in others, and the chronic indolent nature and uniformly hard character of the swelling in other forms of orchitis will assist towards a correct diagnosis. *Hæmatoma* of the epididymis resulting from the injury may be excluded in this case, as in such a condition a degree of permanent hardness or atrophy of the testis with a possible hernial protusion would be found.



EXTERNAL VIEW.



INTERNAL VIEW.

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Pathology.—Eve describes two forms of cystic disease of the testicle—cystic fibrona and cystic sarcoma—between which there may be intermediary forms of growth. These tumours originate in the rete testis, and gradually flatten out and compress the body of the testicle in front of them. Eve thinks that the cysts and epithelial overgrowth owe their origin to persistent rudiments of the Wolffian body. The cysts may also arise by dilatation of the tubules or the lymphatics. The clinical forms of new growths of the testicle are far less numerous than the histological or microscopical elements which are found in them. One finds the same tumour containing fibrous myxomatous sarcomatous and cartilaginous tissues blended. Nor is it possible to draw a sharp distinction between innocent and malignant growths of the testicle, because in this organ there is a tendency for simple tumours, such as cystomata, myomata, and chondromata to be followed like sarcomata and carcinomata by secondary deposits in the lumbar glands and elsewhere. In present case some of the inguinal glands on affected side were considerably enlarged, but they disappeared some weeks after removal of growth, thus pointing to inflammatory origin. The hydrocele contained a bright yellow flocculent fluid in place of the usual straw-coloured fluid, being an example of so-called fatty, or chylous hydrocele. The colour varies from a whitish-yellow to a pea-soup colour. Many theories have been given to explain the character of the fluid, *e.g.*, (1) parasitic; (2) traumatic; (3) lymphatic; (4) fatty degeneration of epithelium of tunica vaginalis, and the fluid of any ordinary hydrocele.

My view of this case is that from the severe injury sustained, epididymo-orchitis resulted; hæmorrhage took place into a previously existing encysted hydrocele of the epididymis, producing hydro-hæmatocele, and subsequently cystic sarcoma developed in the testis. The double constriction observable on the hydrocele was produced by pressure at the internal and external abdominal rings furnishing an example of what some French writers describe as "hydrocele en bissac," caused by (1) localized thickening of tunica vaginalis rendering a portion less yielding than the rest; (2) Pouching of Tunica Vaginalis (Mr. Gould, *Lancet*, 1890, p. 854). Morris describes a rare form of bilocular hydrocele, consisting of an infantile hydrocele with a prolongation of the sac into the abdominal cavity (as in this case), or even into the pelvic cavity. In these cases the funiculo-vaginal process is unobliterated, generally as high as the internal ring, and it may remain open below as far down as the testis, or only to the top of the scrotum. As the fluid in the hydrocele in these cases increases it gradually passes into a pouch which may attain even much greater dimensions than the funiculo-vaginal sac, and which reaches either upwards between the muscles of the anterior abdominal walls and the parietal peritoneum, or passes downwards between the pelvic peritoneum and the wall of the false or true pelvis. There is a separation of the hydrocele into two parts by a constriction situated in some cases at the external abdominal ring, in others higher or lower. The two parts or sacs communicate with each other by an opening of very varying size. The abdominal portion is usually much the larger, though in one of Kocher's cases it was much the smaller, and only the size of a nut. Fluctuation is generally communicated from one pouch to another, and the intra-abdominal pouch has been known to press on the bladder and cause retention of urine. Jacobson, in his work on "Diseases of the Male Organ of Generation," describes inguinal hydrocele, or hydrocele in relation with a retained testis, which may occupy a position somewhere between the abdominal ring and the scrotum or the testicle may have passed through the external ring, and be situated between the aponeurosis of the external oblique muscle and the integuments, as was found in the present case. There was well-marked torsion or axial rotation of the cord in this case. Nicoladoni describes such a condition in a retained testicle in the inguinal region of a young man in 1885 (Langenbeck's "Archives of Clinical Surgery," p. 180). Bramann describes a similar case in the same archives in the year 1890. Mr. W. Giffard Nash first specially directed the attention of the profession in England to the condition in June, 1891. The case was described as one of "Strangulated epididymis of an incompletely descended testis producing symptoms like those of a strangulated hernia, for which castration was successfully performed. (*British Medical Journal*, June 6th, 1891.) Since publication of Mr. Nash's paper several cases have been recorded. Mr. Edmund Owen gives a summary of these in the 17th volume of the Medical Society's transactions (1894, p. 61 *et seqq*). It is generally associated with imperfect descent of the testis, the mesorchium being either absent according to Nicoladoni, or too long as described by Gervais. Arnott operated on a case of medullary cancer occurring in an undescended testis, where the patient died of erysipelas, and Storks describes a similar case, where the patient died a year afterwards from recurrent cancer. It is remarkable that peritonitis does not seem to be the chief danger of this operation.

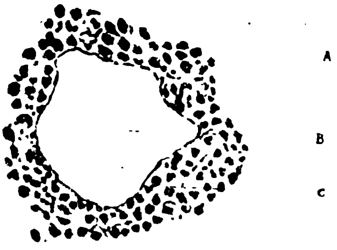


Fig 1

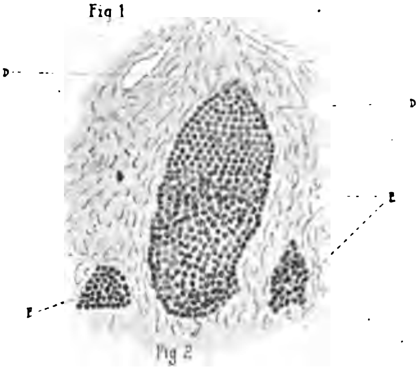


Fig 2

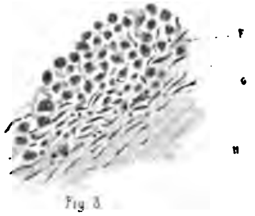


Fig 3

W. T. MUNRO, del.

DESCRIPTION OF PLATE.

Figure II.—Camera Lucida Abbé; Objective No. 3, Leitz; Ocular No. 1. Slightly oblique section of a portion of a tumour of the testicle: Colouration Unnals polychrome blue.

E.E.E.—Collections of round cells enclosed in a fibrous stroma DD. Under this magnification the structure resembles that of a scirrhus tumour.

Figure III.—Camera Lucida Abbé; Objective No. 6, Leitz; Ocular No. 1. Part of the same, showing the junction of the round-celled collection F, with the fibrous stroma H; and the gradual merging of the one into the other. At the junction G a number of spindle cells are seen. The round cells are multinucleated, and there is an intercellular stroma.

Figure I.—Camera Lucida Abbé; No 6 Objective, Leitz; No. 1 Ocular. A cross section of an embryonic blood vessel, contained in another part of the same section. Here may be seen the round cells A, in immediate contact with the single layer of endothelium C, which forms the vessel wall. An intercellular substance can be observed between the cells.

COMMENTS.

1. Encysted hydrocele rarely extends into the inguinal canal and still more rarely becomes intra-abdominal.

2. Abdominal portion of bilocular hydrocele generally the larger, whilst in this case it was the reverse.

3. Non-involvement of cord, inguinal and iliac glands, considering extent of new growth in the testis.

4. Advisability of early castration in cases of undescended or ectopic testes.

5. Considering shock following ligation of cord advisable to allow patient to come partly from influence of anæsthetic before adopting that procedure.

6. Avoiding use of truss in case of undescended testis as it is by no means harmless, and is a constant source of irritation and may excite inflammation.

7. The testis may be placed in its proper position in the scrotum by transplantation, which should be undertaken when the boy is eight or ten years old, and earlier if the testis is in the perinæum, being so liable to injury when sitting.

8. Undescended and misplaced testes are liable to all the pathological conditions affecting the normally situated organ, and inflammation and malignant disease are very prone to occur. Inflammation usually springs from some injury or source of irritation, and may be caused by partial or complete torsion of the cord.

9. Misplacement of the testicle arises from over-action of certain bands of the gubernaculum testis, and is usually unilateral.

10. Retained testes in most cases owing to irritation by muscular contraction, by a truss, or by direct injury, remain undeveloped, and undergo fatty and fibrous degeneration, and therefore become functionally useless.

11. In cases where the testicle has been inflamed and cannot be transplanted, castration should be performed, thus relieving the patient of a functionally useless and often troublesome testicle which may again inflame, and become the seat of malignant disease.

12. Marked efficacy of saline cathartic in peritonitis following the operation.

The following is a description of the microscopical structure of the tumour, for which I am indebted to Dr. W. J. Munro.

The piece was hardened in acid sublimate solution, and after embedding in paraffin in the usual manner, sections of $\frac{1}{180}$ of a millimetre were made, and stained with unnas polychrome blue. Under a low power, the growth was found to be made up of collections of cells surrounded by a well-marked and abundant fibrous stroma. Here and there in the latter were noticed the cut ends of well-developed blood vessels. Spaces existed, also, amongst the included cells similar in appearance to transverse or longtitudinal sections of vessels; but these could not be identified under this magnification, and no inter-cellular substance could be seen. The individual elements of the cell collections were, furthermore, apparently quite separate from those of the surrounding stroma. When examined under a higher power (275 diameters) the cells in these collections were seen to be, for the most part, of the large, round variety; and many were multi-nucleated; but mixed with these, especially towards the margin of the groups, smaller ones were visible, and a fine inter-cellular substance could be distinctly made out. The round celled masses also could be seen to gradually merge into the stroma and, at the point of junction, numerous cells had assumed a more or less spindle shape. The contained open spaces before referred to were immedialely enclosed by a single layer of endothelium in contact with the round cells or inter-cellular substance—in fact they were embroyonic blood vessels. All normal tissue had disappeared and, therefore, there was no histological evidence as to the nature of the organ from which the piece had been taken This section, under the lower power, reminds one strongly of the structure seen in scirrhus cancer; but the presence of embryonic vessels and inter-cellular substance between the elements of the celled groups and the gradual transformation of the round into spindle shaped cells, and finally into fibrous tissue is evidence against the conclusion and points to the fact that the growth is of a large, round cell, sarcomatous type. The conditions noted are probably due to a sarcoma invading parts where the normal structure has been destroyed and converted into fibrous tissue by prolonged and repeated inflammatory attacks, through the constant irritating effect of immediate pressure, or possibly, the combined influence of these two factors. Recognising the fact that there might be some reasonable doubt as to the nature of this tumour, I asked Dr. Wilkinson to examine the section, and after having done so he confirmed my opinion. An examination was also made of part of the fluid contents of a cavity associated with this growth. This liquid was of a bright yellow colour, and a flocculent yellow precipitate was suspended therein. A number of film preparations were made and stained with a watery solution of eosine and hæmatoxylin, and, on examination, a few polynuculear leucocytes, some lymphocytes, with a mixed debris partly granular and partly amorphous were found.

WM. J. MUNRO, B.A., M.D., &c.

NOTES ON REMOVAL OF UNDESCENDED TESTIS OCCUPYING INGUINAL CANAL.

By JOHN M. McDONAGH, M.D. BRUX, M.R.C.P. LOND., F.R.C.S. IREL, SYDNEY.

◆

J.C., aged 25, noticed since childhood that only one testicle occupied the scrotum. Twelve years ago a truss was ordered by his medical attendant, the use of which always caused him pain, so he only used it at intervals. On examination, the left scrotal cavity was empty, the right testicle being normally situated. An ovoid tumour having testiclar sensation was found in the mid portion of right inguinal canal. Pain and inflammation were present. Castration recommended, which was performed. The divided extremities of sac of tunica vaginalis were sutured, forming an efficient plug in the inguinal canal, thus minimising chance of hernial protrusion. There was a good deal of matting of the tissues in the canal from pressure of truss. The patient has married since and has a family. My only reason in bringing this case before you to-night is that it forms such a contrast with the case I have just read, proving what disastrous results may follow injuries to undescended testes. Some of the fœtal relics are observable in the specimen which I am exhibiting, and one can readily imagine how easily cystic formations occur in such a condition.

PROSTATIC HYPERTROPHY.

By H. V. CRITCHLEY HINDER, M.B., CH.M., HON. SURGEON PRINCE ALFRED HOSPITAL, LECTURER CLINICAL SURGERY, SYDNEY UNIVERSITY, SYDNEY.

◆

I FEEL that I need offer you no apology for the introduction of the subject of prostatic hypertrophy, but rather that we should offer every apology to the prostate and to those who suffer from prostatic hypertrophy for having in the past paid so little attention to this very common and very dangerous condition.

The very few papers on urinary disease which have been read before this society during the past few years is fair evidence of the lack of interest which is evinced in the subject. Doubtless, the glamour which is thrown over intra-peritoneal surgery has induced every tyro to brag of the number of sections he has made even as an Indian of the scalps he has taken.

The genital organs of women have been subjected to the closest scrutiny, and at times removed on the slightest provocation, but those of the opposite sex have received but scant attention, why, it is difficult to say; but I am quite convinced that if some of the older members of the profession who now suffer from troubles connected with advancing years had their time over again, this particular branch of surgery would soon occupy the exalted position its importance deserves.

In a short paper like this it is not my intention to go deeply into the matter, but to draw attention to a few features in connection with prostatic hypertrophy, which may be of interest to some of you, and perhaps of some clinical value.

The older teaching, that this morbid condition is limited to advanced years, is by no means precisely correct. Though it is true that the majority of cases occur after fifty years of age, I have seen a few patients far younger. One man of 41 years, who had four ounces of residual urine, had an obstruction consisting of a median nodule as large as a pea, which very effectually blocked the orifice of the prostatic urethra. In another case the patient was 43 years of age and his symptoms had lasted for five years, so that he was 38 when his condition first declared itself. At the time of operation the residual urine amounted to fourteen ounces. He had taken advice frequently, but doubtless his age had served to eliminate the probable cause of his trouble. The obstruction at the time of removal consisted of a collar whose lower lip was as large as a pigeon's egg.

It is not at all common to find men of very advanced age suffering from prostatic hypertrophy. I knew some half dozen only who were over 75, but I have known many whose ages were between 75 and 94, and who had never experienced any symptom of prostatic hypertrophy. Thompson states that 34 per cent. of men over 60 have enlarged prostates. Belfield makes it 30 per cent. Marked symptoms of prostatic hypertrophy are said to be found in only 15 per cent.

Notwithstanding the various theories which have been propounded as to the cause of prostatic hypertrophy, I think that it is most reasonable to look upon the condition as one of the features associated with approaching senility. All old men do not suffer from enlargement of the prostate, nor, on the other hand, do all men grow old in the same way, and even as some men may possibly develop the condition soon after the early age of 40, so may others begin to show signs of cardiac or respiratory failure at the same age.

The variable character of the enlargement is often not sufficiently borne in mind. A very common fallacy is that if the prostate be not felt enlarged per rectum, that it therefore does not cause any obstruction to the flow of the urine

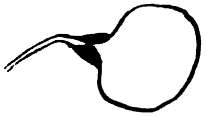
I have found a blockage sufficient to give twenty ounces of residual urine associated with a prostate that per rectum showed barely any increase in size, and, on the other hand, a prostate that appeared per rectum to be about as large as a goose's egg gave rise to no irksome prostatic symptoms, and was accompanied by no more than one ounce of residual urine. Everything depends on the size and relationship of the obstruction to the internal orifice of the urethra. A small nodule may cause more trouble than a prostate which is so enlarged intravesically as to increase the length of the prostatic urethra by two inches. Examination of museum specimens is no doubt a valuable adjunct in obtaining a proper conception of pathological conditions, but at the same time such specimens are apt to confuse one's clinical ideas. The prostate as seen in a split-up, shrunken bladder in a museum jar is a very different thing to a prostate in a distended living bladder seen with a cystoscope, or with a windowed speculum introduced suprapubically.

An examination of the sketches I have introduced in a somewhat diagrammatic fashion shows very well the state of things found, and will probably explain more easily than I can in words the extent of the obstruction.

The character of the enlargement varies considerably, but in most cases the glandular element predominates, but, unfortunately, the fibrous and muscular tissue is also present to such a degree, that the induced atrophy of a large prostate does not always lead to such a reduction as to allow of normal micturition. In the majority of cases, the so-called middle lobe enlargement, though the middle lobe is really only a pathological condition, has existed in about 85 per cent. of the cases examined by me. Thompson, Watson and Dittell all make it about 90 per cent. Enlargement in this situation is always associated with a general increase in the size of the organ but in a very varying degree. It is not uncommon to find an anterior nob-like prominence as well as a posterior; or the two may coalesce laterally to give an irregular collar-like arrangement. This collar is quite internal to the so-called internal sphincter, which is after all merely a prolongation of the muscle wall of the bladder.

I may at this stage be permitted to speak of another condition, which is probably at times mistaken for a prostatic collar. I have only met with it on three occasions on opening the bladder. It has been spoken of by Belfield and Post as a hypertrophy of the prostatic sphincter. Belfield has described these cases as existing in young men under thirty years of age. My own cases were in men between forty and fifty. Post speaks of it as a fibrous ring, though no examination was made. In two of my cases sections were cut, and the portion removed was wholly made up of a little nonstriped muscle, much fibrous tissue, and was thickly permeated with vessels looking somewhat like erectile tissue. All these patients had a large amount of residual urine, one of them to the extent of 40 ounces, though his urine was clear. The frequency in my cases varied between twenty minutes and one and a half hours. As a rule, there is a considerable amount of pain along the urethra, and frequent and painful micturition which often improved for a short time. On introducing the finger into the bladder, the internal meatus, instead of presenting the funnel like shape which is present in a normal, well-distended bladder, is felt to be rigid, hard and contracted, and only after some pressure will it give way. Free removal of a triangular section followed by drainage for a time, restored normal micturition.

The general enlargement of the gland is very often accompanied by a formation of bosses on the surface, and particularly at the meatus. In this manner a large mass is formed, which must be removed before micturition can be restored. Then, again, the enlargement may be general and take place in a peculiar manner as Fig. 3 shows, and can hardly be better described than by saying that the prostatic urethra becomes prolonged in an upward fashion, so that the meatus is found at times quite two and a half to three inches away from the normal situation. On two or three occasions I have seen grave errors made. A soft catheter has been introduced, and when after traversing what is considered to be a full distance without any result, further efforts are made with a silver instrument, and repeated unsuccessful attempts have terminated in a false passage or some serious damage to the urethra, for under such circumstances, unless the catheter has a long curve and is well depressed between the thighs, the bladder contents are not reached. In one case, Fig. 8, by far the largest prostate I have ever seen, the opening of the urethra, that is to say, the summit of the prostatic mass was situated three quarters of an inch from the anterior abdominal wall when the bladder was distended. The growth was made up of two large lateral masses and an irregular mass in the centre, which in itself was as large as a goose's egg. Very little urine could be drawn off unless the patient stooped forward, and, as it were, emptied his bladder into the catheter which projected into the upper part of the viscus.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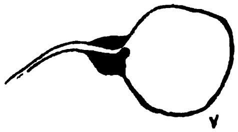
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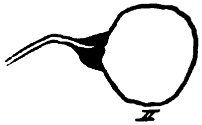
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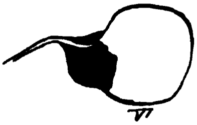
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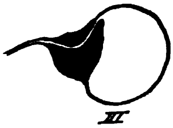
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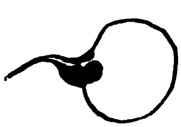
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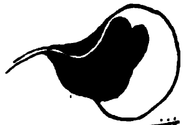
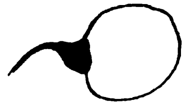


Fig VIII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I once knew a man who assisted himself to micturate occasionally by passing a small broom handle into his rectum, and so lifting up the posterior part of his bladder was in somewhat the same fashion enabled to more completely get rid of his urine. The so-called valve like obstruction to the meatus appears to be overcome in this way. As the bladder becomes more and more distended instead of pressing the prostate over the urethra, its walls pull on the obstructing mass and tend to draw it away so that the feebler the distension the more does the mass block the internal meatus. I have noticed this frequently on introducing my finger into a distended bladder, and so marked is the dragging aside and flattening out of the prostate that until the fluid has escaped one is at a loss as to how great the enlargement really is. As the fluid passes out of the bladder, the obstruction, being released, can be felt to close in over the meatus effectually blocking it. One can easily understand how that the urine collecting in the bladder must necessarily increase to an extent sufficient to draw aside the prostatic obstruction, and that expulsive efforts by increasing the tension of the bladder wall serve to, in some degree, to still further draw it on one side. This is, after all, a little like what tends to happen under normal conditions. As the bladder becomes distended there is a widening out of the internal meatus so as to make the prostatic urethra one with the bladder before the normal inclination to micturate is felt.

Not only has the prostatic patient to put up with the mechanical obstruction offered by an enlarged prostate, but he is liable to have his difficulty of micturition still more increased by the accidental inflammatory tróubles which are likely at any time to supervene. A glass of whisky or port or any unaccustomed amount of alcohol will irritate and bring about a complete retention. A chill following upon wet feet, the fatigue and jarring of a long railway journey may produce the same result. Then again the effort to pass urine apparently sometimes brings about such a congestion of parts as to cause an erection, which still further lessens the possibility of getting rid of the urine. One patient of mine, an old man of 76 years, tells me that about every three weeks he has a complete erection, and is able to completely empty his bladder. I can hardly understand this anomaly, unless he may have a marked development of the muscular fibres along the urethra, which are continued into the prostate and that his obstruction is of such a character that these, on contracting during erection, somewhat level out the urethra. I have not been enabled to make a complete examination, so that I hardly know the character of the obstruction.

The effect of enlargement of the prostrate on the sexual organs is usually very marked, and many complain of impotence, who after prostatectomy have completely recovered their sexual power as well as the power of free micturition. This is rather singular, but yet two or three of my own patients have assured me that such is the case. Directly the bladder becomes unable to completely rid itself of its contents great changes take place. The resisting power of the epithelial lining is diminished, the muscle fasciculi become hypertrophied, and at the same time the marked degree of tension, increased by the intravesical pressure, brings about a bulging and pocketing between the prominent cord-like masses which after all are not wholly muscular, but soon degenerate and show the presence of a considerable amount of fibrous tissue. In time this muscular organ tends to become a mere bag, an inert urinary receptacle, and yet so great is the recuperative power of the bladder that this happens very rarely; in fact, I have only known one case where the bladder was absolutely incapable of recovery. Not only does the constant intravesical pressure set up changes such as these within the bladder, but, as might be expected, the pressure is felt up the ureters, in the pelvis of the kidney, and right into the very glomeruli. A chronic congestion of the kidney, followed by an interstitial nephritis, is gradually set up. Provided the cause is removed sufficiently early, one may still hope to bring about a resolution.

There is still another great danger to be added to all these, and that is the introduction of sepsis. Provided no catheter is passed, I am strongly of opinion that almost all these cases will remain aseptic to the end, but the time will surely come (if the patient live long enough, for some cases develop much more rapidly than others) when retention will take place and catheterism become a necessity. So that between the Scylla of sepsis and the Charybdis of backward pressure the unfortunate victim runs a great risk of becoming a total wreck.

Sepsis so introduced gives a result depending as it does everywhere else on the virulence of the organism and the resisting power of the individual. Cystitis, pyelitis, suppurative nephritis very often rapidly supervene, and these are the unfortunates who are passed on to the urinary surgeon with a gentle request to relieve them of their trouble. The probability of a permanent relief in the grave is often only too well assured. If only these cases were handed to the surgeon when residual urine first becomes manifest, the result would be eminently satisfactory to all concerned Here we have a well-known condition, a disease which will surely advance, and whose existence is fraught with grave danger, and danger too that is the more to be feared, because its onset is so insidious and its results so fatal. Why is it that these cases are allowed to drift from bad to worse, while their medical attendants watch symptoms and administer draughts of kind sympathy? I believe that the chief reasons are these: In the younger men the state of affairs is not discovered, or the patient is looked upon as a hypochondriac, and I could easily bring forward a few cases to illustrate this. In men getting up to the sixties and seventies there seems to be a sort of impression entertained by their medical attendants that they have had their time of it, and that it is not worth while risking any operative treatment, and finally there is the old story of the occasional individual who has done very well by simply carrying a catheter in his hat and lubricating it with his saliva when he wished to use it. As usual, the poor wretches who have died of secondary sepsis are quite forgotten, though their number is by no means small. The same sort of argument is applied to intestinal obstruction and scores of other troubles which may occasionally do well if left alone. The one successful issue has its memory kept green by frequent repetition, and the scores of mistakes or too late cases are early wrapped in sweet oblivion as not being very comforting companions. For my own part, I have seen very few men who are content to put up with a catheter existence for the rest of their days, and many more to whom the introduction of catheter life has meant an early introduction to another world, for it is not too easy to inculcate the principles of asepsis in every old layman. It is often difficult enough for a skilled person to avoid setting up a septic cystitis.

My contention is that the presence of residual urine is a menace to the health and life of the patient, and the line of treatment indicated is that which restores the patient to health with the least possible risk to his life. Even though the physician scouts the idea of secondary complications, if the annoyance and the worry associated with catheter life are such as to make the patient's existence a curse to him, he has a perfect right to demand such treatment. The medicinal treatment of prostatic hypertrophy is confined to a few drugs. Strychnine and ergot, given for about two or three weeks at a time, are of some service in increasing the expulsive power of the bladder.

Boracic acid in doses of ten grains three times daily, but not given for more than two weeks at a time, is of marked benefit in some cases of cystitis with alkaline urine If continued longer albumen may appear in the urine, and on two occasions the patients showed some mental peculiarities which disappeared when the drug was stopped.

Operative treatment has of late years received a considerable impetus, and much ingenuity has been exercised in order to bring about the desired result. I shall discuss some of the methods as briefly as possible.

Orchectomy is not all that can be desired, and I have almost abandoned mentioning it, simply because the thought of it is repulsive to most patients. and its suggestion in most instances is met with strong sentimental objections. The consensus of opinion is that orchectomy may or may not be followed by marked improvement. My own experience is limited to two cases with uniformly enlarged prostates. Both died within six months, but the amount of residual urine had decreased and the frequency was not so marked.

Vasectomy is still undergoing a trial, and too much cannot be said of it until our experience has become somewhat amplified.

A study of my own cases has led me to the opinion I am about to express: That vasectomy is always of some service, and that the improvement usually begins within one week, or even within twelve hours, after operation and may go on for some weeks or months.

That it is most suitable in early cases of slight enlargement of the prostate when the amount of residual urine is small, and also in cases where there is a greater general enlargement of the gland, and where too, as far as can be ascertained, the structure is mainly adenoid.

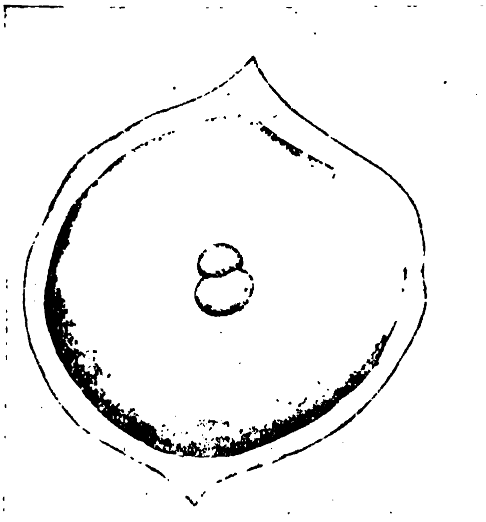
That vasectomy will yield most disappointing results in cases where the examination with the cystoscope and sound shows a pedunculated or nob-like form of obstruction. In these cases the prostate felt per rectum may be very small.

In the case of large intravesical increase in the size of the prostate, all that can be hoped for is that catheterism will be rendered more easy, as in many cases the prostate will by no means shrink sufficiently to permit of anything approaching normal micturition.

In very old men with symptoms of renal inadequacy or pyelitis vasectomy is indicated, and may be greatly assisted by a perineal cystotomy. In fact, this combination restored absolutely normal urination in an old man of 71 years, who had retention and a previous history of frequency to the extent of micturating every twenty minutes. In cases of very great intravesical hypertrophy vasectomy would be a valuable preliminary to prostatectomy. Indiscriminate vasectomy without a careful selection of cases will surely lead to disappointing results.

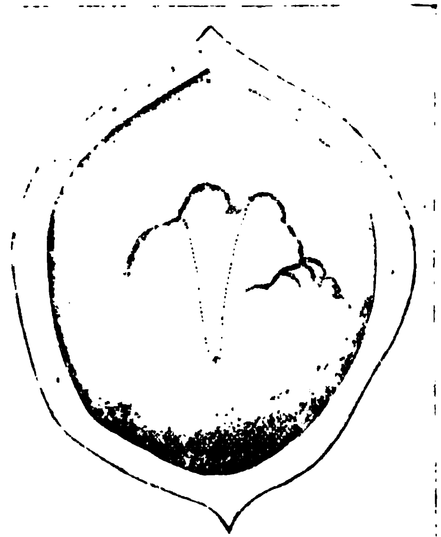
Perineal drainage for three or four weeks is said to, at times, reduce the size of the prostate. Of this I have grave doubts, it may do so at times; at all events, in two cases in which I practised this method, the whole trouble returned within three or four weeks. Perineal prostatectomy by perineal incision only seems to have a very limited field, for I fail to see how pedunculated growths can be relieved in that way. Even when assisted by suprapubic incision, and pressing the growth into the perinæum, the operator cannot but fail in some of those cases which need removal the most. Then, too, suprapubic drainage will hardly suffice if marked sepsis is present.

The operation which I think would strike any unbiassed observer as the most rational, is a suprapubic cystotomy and removal, not of the whole bulk of the prostate, but simply of the obstructing portion, and at the same time to, as Belfield aptly suggests, make a low level channel up to the meatus, cutting away, so as to leave a deep, wide groove. After this the prostatic urethra must be carefully examined and obstructing nobs removed, and finally, by means of a perineal cystotomy, a 16 or 18 size metal tube may be introduced, and drainage carried on for about three weeks. This in itself will lead to most gratifying results. In old men a vasectomy may be performed a week or two earlier in order to make doubly sure. However, my very worst case operated on five years ago, has done admirably without vasectomy. This man, about 52 years of age, had had a catheter life absolutely for two and a half years. He has remained with perfectly normal micturition up to the present, and his sexual powers which were in abeyance have returned. I might add that I have known this sexual impotence to occur in a man of 39 years, who suffered from prostatic hypertrophy and who underwent prostatectomy at 43 years. He had sought advice frequently, but was looked upon as a hypochondriac and his condition was not recognised, yet he had ten ounces of residual urine and a nob-like enlargement the size of a pigeon's egg. Reginald Harrison, who has performed a considerable number of vasectomies, says that orchectomy probably extinguishes both the desire and the power to procreate, while vasectomy extinguishes the power simply by division of the seminal canals. This is a question which will take time to settle, inasmuch as the sexual desire is sometimes completely absent in patients suffering from prostatic hypertrophy. It may be accepted then, that in cases of prostatic hypertrophy when sexual power is absent and has been absent for three years, the power may return after prostatectomy, and also that vasectomy does not necessarily destroy the sexual inclination. It is well known that castration in animals, while it certainly destroys the power to procreate, does not necessarily destroy the desire and the same holds good in man, and for this reason in Eastern countries, eunuchs whose penes have been removed are more highly valued.



BLADDER OPENED SUPRAPUBICLY.

Mid-lobe nodule above and below urethral orifice.



BLADDER OPENED SUPRAPUBICLY.

* Site of internal meatus.

Dotted line shows urethral prolongation.

The character and the amount of the hypertrophy may be fairly accurately ascertained by a careful examination. Digital examination per rectum gives one some idea that the prostate is a fault, though it must be borne in mind that the size of the prostate felt per rectum is by no means an indication of the amount of obstruction. In fact, at times there may be a large amount of residual urine, and practically no increase in size felt per rectum. If there is a great amount of residual urine and a prostate large per rectum, together with a history of urinary trouble for some years, it is very likely, indeed, that the intravesical growth will be considerable. Sometimes a bimanual examination is possible, and more accurate information may be obtained. However, this method alone which has been looked upon as one's only method is of itself of no very great value. Suppose, however, we take a short beaked sound, after the style of a solid stone searcher (I prefer this to Thompson's lighter hollow instrument), as soon as the educated touch allows the surgeon to be sure that he has gone the whole length of the urethra, the resistance to rotation immediately conveys the impression that an intravesical blockage is present. Then take a longer beaked sound, and if the growth be small, a larger range of movement will be experienced, whereas in cases where there is immense hypertrophy, a very much curved silver prostatic catheter will be tightly held. With a little practice, this method of examining will be found to convey a considerable amount of information. Next pass a soft or silver catheter and the increased distance beyond the normal length of the urethra which it is needful to pass the catheter, is a guide as to the increase in length of the urethra, and, therefore, of the probable amount of obstruction which the intravesical growth has occasioned.

Examination with the cystoscope is of value just in those cases where other methods of examination are of least assistance, and where, too, it is of the most importance that an accurate diagnosis should be obtained. I refer to very early cases of prostatic hypertrophy. In very early cases the straight cystoscope is of most use, but in cases where the gland has already enlarged somewhat, the refracting instrument gives the greatest satisfaction. The post-prostatic pouch in a uniformly enlarged prostate, and where there is a great amount of residual urine, is practically made up of the whole of the lower and posterior part of the bladder, but in cases where there is an irregular nodular increase in size, there is more often a distinct pocketing, though at the same time I have never known this to occur without the presence of stone. The post-prostatic pouch is caused then, in the first instance, partly by the irregular enlargement of the prostate, partly by the diminished resistance offered by the enfeebled perinæum posterior to the prostate, and partly to the presence of stone. The pathological possibilities then make it very evident that a cystoscopic examination under these circumstances is of great value for more reasons than one If the growth be very large the beak of the cystoscope presses against the mass and only a dull red blaze is seen. On the whole then, these different methods give the operator a considerable amount of information, and greatly assist him in the line of treatment he is to adopt.

So far, I have operated for prostatic hypertrophy on twenty-three different occasions with two deaths, a little less than ten per cent. Belfield makes the mortality 13 per cent. I may mention that my method of operating has altered considerably. In some of my first cases the growth was removed by means of scissors through a silver speculum. By first examining the bladder and the growth through a windowed speculum, I was able to watch the interior of the bladder while distended, and see the altered appearance of the prostate as the bladder became emptied. Later on I found that the speculum was useless, except for small growths.

The dangers of prostatectomy are, hæmorrhage, sepis, respiratory troubles following the operation. Chloroform is the best anæsthetic, and it is less likely to give rise to trouble with the respiratory and renal organs than ether. Operative treatment in such subjects, enfeebled by the prolonged struggle against the inevitable, can by no means be attended with a very low mortality. In consequence of this one's work is often considerably embarrassed. On one occasion the operation had to be completely abandoned, because as soon as the conjunctival reflex became dulled, the pulse dropped to forty, and the patient nearly collapsed. A perineal cystotomy, followed by a vasectomy later on, was substituted and was attended with a fair result.

In opening the bladder suprapubically, no rectal bag is used, and the bladder is distended with eight or ten ounces of water by hydrostatic pressure in order to avoid rupturing the weakened bladder wall.

The suprapubic wound is made with as little tearing as possible and by clean cuts. The bladder is hooked up and held there while a catgut suture is placed in the superior angle of the wound so as to fasten the bladder wall firmly to the anterior abdominal wall. Using the forefinger as a guide, one blade of the prostatectomy forceps is thrust into the prostatic urethra as far as possible; then, by forcibly closing, the lower blade sweeps upward and leaves a broad track ascending to the internal meatus. If this be not sufficient, lateral cuts need be made either with the same forceps or with a serrated scissors. It is very essential that these tools be blunt. The hæmorrhage may be checked at the time by the pressure of three fingers on the raw surface for a few minutes. If this be not sufficient, a swab dipped in equal parts of hazeline and water pressed on the spot has, in my experience, never failed. When the hæmorrhage has ceased a perineal cystotomy is performed and a metal tube inserted. The bladder is then filled with gauze introduced through the suprapubic opening. The sides of the perineal tube are packed with gauze also. In six hours the gauze is removed from the suprapubic wound, usually clearing the bladder of clots which would otherwise have blocked the perineal drain. The perineal gauze packing is removed after two days.

My greatest trouble with these cases is at times a reactionary or more often a secondary hæmorrhage. For this reason careful nursing is required and the possibility of fairly prompt assistance being rendered by the operator.

Every care is taken to conduct the operation in as cleanly a manner as possible, whether the urine is septic or otherwise, for a bladder may deal with its own organisms but be completely incapacitated by the introduction of new varieties.

One of the two deaths I have spoken of occurred a week after operation, and was due to pneumonia. The patient was 62 years of age. His wound and his bladder were in a perfectly healthy condition when he died.

The other death was in a man of 66 years, sent me by Dr. Kerr, of Wollongong. His prostate was twice as large as the largest I have ever seen. There was no malignancy present, and the mass was made up mainly of adenoid tissue with a considerable amount of fibrous material. Catheterism was at times well nigh impossible unless an over-curved prostatic catheter was used. The old man used to bend over, and, as it were, empty himself after he had passed a catheter. During the operation there was a fair amount of hæmorrhage which was easily stopped, but when the gauze was removed ten hours after the bleeding was fairly sharp, and the bladder quickly filled with clot. I was alone and had to anæsthetise and attend to the bladder at the same time. While doing this a small puncture must have been made in the peritoneum in the upper angle, so that a small amount of bloody urine escaped into the peritoneal cavity. The patient had absolute suppression for twenty-four hours before he died, but I am not too sure that this was not due to the septic peritonitis.

One can hardly consider that a good result has been obtained, unless there is an absence of frequency of micturition and an absence of residual urine. This result has been obtained in all but four cases. One man, aged 62 years, led a catheter life absolutely for eighteen months. After the operation he was able to pass urine at times, and at other times resorted to the catheter. He died four years later, and post-mortem we found suppurative nephritis, but no sign of intravesical enlargement of the prostate.

Another patient was a drunken rascal who was killed six months after operation. I was never too sure about him, for seeing that I was interested in him he trimmed his sails to suit the breeze, however. I think it only fair to look upon him as but a partial success. The third patient is 68 years old. It is now seven months since operation, and he has a full, free stream, with a half to one ounce residual urine and he gets up twice in the night. However, this is better than getting up every half hour and with great pain and effort squeezing out a few drops at a time as was his custom for some months before. The fourth case was a man of 43 with a five years history. When first seen he was accustomed to, as he put it, go about like a dog, his one thought being to find a choice spot where he might micturate. Now this man has a full but feeble stream and about three to four ounces of residual urine. He passes a catheter at bed time and then as a rule sleeps all night. I intend to look at this man's bladder again if possible for his is the only case where it has appeared that the bladder did not empty itself because of its want of tone. Bladder atony is talked about a great deal but the recuperative power of bladder muscle can be reckoned on with a tolerable degree of certainty. The term atony is more often an expression of the surgeon's inability to remove the obstruction to micturition.

I fear that I have already detained you rather long but I hope that you will allow me to concentrate your attention on the precise state of affairs. Here we have a disease which is absolutely certain to steadily increase as the the patient grows older, and so insidious and so far reaching are the pathological changes to which it gives rise that it is fair to say that every year, every month the sufferer lives, the less are the chances of his reaching a ripe old age. For some extraordinary reason there seems to be an aversion on the part of the profession to recommend operative treatment, particularly in the early stages when most successful results may be obtained; and yet it is very evident that there is no other form of treatment which is productive of such great and lasting benefit to the patient. If only some thought were given to the dangers of delay, and the patient made aware of the grave consequences attending his procrastination, surgeons would be able by prompt treatment to effectually diminish the mortality. And remember, too, that this mortality is a very serious one occurring as it does in men who, by their ripe experience and full intellectual vigour have arrived at an age when they are of incalculable value to their fellows and to the State.

TUBAL PREGNANCY IN A WOMAN OF FORTY-SEVEN.

By ARTHUR ANDREWS, M.R.C.S., L.S.A., ALBURY, N.S.W.

SEEING the subject of the following rough notes to-day, I thought they might be of some interest to your readers. I have hitherto been unable to find any account of this accident at such an advanced age, but my access to books is limited so far from a metropolis. Her great bulk, combined with her age prevented a clear diagnosis being made at first. The successful result is all the more gratifying on that account The patient, a short woman 5 ft. 4 in. in height and weighing nearly 15 stone, consulted me on July 10th, 1898. She had been suffering from a constant sanguineous discharge for five weeks, following on an absence of menstruation for two months. The discharge was accompanied by much pain and was sometimes clotted. She was occasionally sick in the mornings and believed herself to be miscarrying. She had had seven children, the last seven years before. On examination I found the uterus enlarged, and the os patulous, but owing to her stoutness I was unable to define the tubes and ovaries. The hæmorrhage being free I advised curetting. She went into a private hospital, and on the 11th I curetted under chloroform. A quantity of debris was scraped away, though nothing definite without microscopic examination which I was not able to secure at the time. While under the anæsthetic it was still impossible to define the tubes, etc. After curetting she was much relieved, and the discharge almost ceased, the dyspeptic symptoms disappeared, and she was generally better. The improvement continued till the 19th, when she was seized with sharp pain in the left flank and groin, with tenderness but no perceptible fulness externally or per vaginam. The pain was relieved by leeches and foments.

On the 21st the pain returned with swelling above the pubes and towards the left groin. Free hæmorrhage recurred from the uterus and she was much distressed. The bowels acted well, but the swelling and pain increasing, laparotomy was decided on.

At 10 a.m. on the 22nd I operated, assisted by Dr. Kennedy, Dr. O'Shaughnessy giving chloroform. On opening the peritoneum a large quantity of clots and fluid blood escaped, and the nature of the case was soon apparent. The left fallopian tube was much enlarged and ruptured, and an ovum the size of an hen's egg was partially protruded from the rupture. The tube was ligatured and removed, and an attempt to wash out the loose clots and blood with boracic lotion made but unsuccessfully. I therefore inserted a glass drainage tube, and closed the wound round it as well as possible. The manipulations were difficult as there were over three inches of fat in the abdominal wall. She bore the operation fairly well, and had no vomiting after. The tube was removed after 36 hours, the bowels were opened on the third day, the temperature only once reached 100°.

On the 28th some decomposing clots were discharged from the track of the tube. This discharged till August 8th, when the pedicle ligature was thrown off, and the wound closed at once.

She was up on the 13th and returned home at the end of the month. Six months after, two of the silk stitches used for the deep fascia came away, and two more eight months later. She is now in good health with the exception of a limited hernia of the scar easily controlled by a belt. She works hard and is still menstruating regularly.

Tubal pregnancy, though not rare, is not common and yet frequent enough to be ever present to one's mind. I have operated for it 15 times in the last six or seven years, three times during 1900, so that I might expect to recognise it when present. In this case the failure in diagnosis was entirely due to her size preventing full examination, though I do not doubt that her age assisted to obscure the real complaint. One thing this case thoroughly impressed on me was the harm which often follows the use of a drainage tube, and I have scarcely used one since. I have had no reason to regret it, and with a large number of abdominal sections since have had no trouble with the scar.

REMOVAL OF THE GASSERIAN GANGLION—SOME TECHNICAL POINTS.

By Charles MacLaurin, M.B., C.M. Edin., Hon. Assistant Surgeon to Prince Alfred Hospital and to the Women's Hospital, Sydney.

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A man, aged 45, consulted me for severe traumatic facial neuralgia, from which he had suffered for fourteen years. During that time he had had two divisions of his fifth nerve excised, and his skull trephined without permanent benefit. In October, 1900, I removed his left gasserian ganglion; from that time, he tells me, he has had no pain. As neuralgia is a subjective phenomenon, we are not entitled to draw any conclusions as to the justifiability or effect of the operation without the experience of a very large number of cases; but during the operation, and on reflection since then, several points in technique occurred to me, which seem worth recording.

The extra-cranial method of Rose appears much inferior to the intra-cranial method, and will therefore not be considered.

The following are the steps of the operation:—

(*a*) Semicircular incision, with its base on the zygoma, its circumference reaching to the temporal ridge; the base 3 inches long; this goes to the bone.

(*b*) Chisel through bone all round incision, and lift up flap. Or trephine through centre and then saw away fragments. A hole in the skull 2 inches by 1½ inch is necessary.

(*c*) Strip dura mater from middle temporal fossa with fingers and small swabs on holders.

(*d*) Search for middle meningeal artery; follow it up to foramen spinosum; pass a ligature round it and tie close up to the foramen cut.

(*e*) A little internal and anterior to this expose the foramen rotundum with the third division. Before cutting this expose the second division of the foramen ovale, still further anterior and internal.

(*f*) Draw these nerves out of the skull for a little way and cut them. Follow them up to the brain, and trace them to a pea-like body the gasserian ganglion.

(*g*) Make a semi-circular incision through dura mater above this body, exposing its internal aspect and the main trunk of the fifth nerve. Cut through this.

(*h*) Seize ganglion with sinus forceps and twist it gently away.

(*i*) Arrest hæmorrhage by sponge-pressure, pack tightly with gauze, and sew up wound.

The following are the special points upon which I wish to lay stress:—

(*a*) After each of these steps considerable oozing occurs, and this should be entirely checked by sponge-pressure before proceeding further. Much of the reputation for difficulty attached to this operation is simply due to incomplete arrest of hæmorrhage after each step. Great patience is therefore necessary, and two hours is a very fair time to take over the operation.

(*b*) I attach great importance to the middle meningeal artery as a guide to the foramen spinosum, and thence to the other foramina. If this be not followed the surgeon is apt to wander vaguely about all over the middle temporal fossa without finding anything. As for plugging the foramen spinosum with permanent foreign body, this seems to be unnecessary when it is not excessively difficult to tie the artery.

(*c*) The first division of the nerve must be avoided till the last moment, not, as Reuton recently said, for fear of the eye-ball sloughing, but because of its intimate relationship with the cavernous sinus. If one excises the ganglion the eyeball must just take its chance, because the first division must go with the others. When the ganglion is twisted away the nerve comes also, with a tremendous rush of blood from the cavernous sinus; and it is to postpone this bleeding till the last that one leaves the first division intact as long as possible.

(*d*) Another point is not to cut the third division till the second division is exposed; otherwise the third division may be lost, as it resembles a tag of dura mater, and a useful guide to the ganglion thus be not available.

(*e*) Contrary to the statements in the textbooks, I believe retractors to be not only useless, but a positive nuisance. They are in the way, and not nearly so efficient as the surgeon's fingers.

(*f*) An electric headlamp is more than valuable; it is essential. The operation cannot be done safely without it.

(q) The following instruments are neces- —Scalpel, dissecting forceps, artery forceps, chisel, mallet, trephine, elevator, bone forceps; long, fine, curved, blunt-pointed scissors and similar sinus forceps; small fine aneurism needle; swab-holders; headlamp. But the more the surgeon uses his fingers in the intra-cranial work, and the less he trusts to elevators, retractors, etc., the less harm is he likely to do.

WE desire to call the attention of our readers to the special terms on which Messrs. Angus and Robertson are supplying Allbutt's "System of Medicine." They are prepared to deliver the complete set of eight vols. on receipt of a remittance of 24s., the balance being payable in ten monthly instalments of £1 each. This is an opportunity that may not again occur of acquiring what is admitted to be the best treatise on medicine ever issued. Complete prospectuses and order forms may be obtained from Angus and Robertson, 89 Castlereagh-street, Sydney.

TRANSACTIONS OF THE INTERCOLONIAL MEDICAL CONGRESS OF AUSTRALASIA—QUEENSLAND SESSION, 1899.—We are informed by Dr. Wilton Love, the hon. secretary to this Session of the Congress, that the transactions of the Intercolonial Medical Congress, held at Brisbane, will be issued during the present month. Press of Government work has hampered the issue of this volume. Each author of papers printed in the transactions will receive twenty-five copies of his contribution.

PROCEEDINGS OF BRANCHES.

NEW SOUTH WALES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

THE usual monthly meeting of the Branch was held at the Royal Society's room on Friday, 14th December, at 8.15 p.m. Present: Dr. W. H. Coutie (President), in the chair; Drs. McDonagh, Wm. J. Munro, J. M. Gill, Binney, W. Chisholm, R. Pope, Hinder, Bennet, Palmer, Crago, Rennie, Jamieson, Regd. Bowman, Neill, R. H. Jones, Cleland, McMurray, Blackburn, G. R. P. Hall, Flynn, Taylor Young, Thring, Hankins, Knaggs, Ludlow, Blackwood, Cosh, Doak, Reiach, Foreman, Murray Will, Kater, Stacy, Bucknell, Wade, A'Beckett M'Carthy, Gledden, Mackenzie; visitor, Dr. W. E. Harris.

The minutes of the preceding meeting were read and confirmed.

The PRESIDENT announced the election of Drs. Salter and Mary Booth as members.

Dr. W. Chisholm showed a case of extroversion of the bladder on which he had operated with satisfactory results.

Dr. MCMURRAY read a paper on "A Case of Lupus Erythematosus," treated by the X rays. (See page 9.)

Dr. REGINALD BOWMAN read a paper on "A Case of Lupus Vulgaris treated by the X Rays." (See page 10.)

Dr. F. A. BENNET said: These cases of Drs. McMurray and Bowman come as a timely contribution to a subject which at the present moment is interesting almost every section of the medical profession. There seems little doubt but that the X rays are a great advancement upon every less modern form of treatment, and in cutaneous tubercular affections at all events—as in this case of Dr. Bowman's—will supersede every other method; claiming as peculiarly and pre-eminently its own (1) a constancy and rapidity of cure never heretofore attained; (2) a freedom from pain which stands in gratifying relief to caustic and curette; (3) an excellence in finish, too, the resulting scars being soft and pliable and approximating very closely to the form and appearance of normal skin. I do not, of course, forget Finsens' phototherapy, but the principle I understand, is the same in both and the rays probably identical, whilst Rontgen rays have the advantage of cost and speediness of cure. When we come to the subject of lupus erythematosus we are not so sure of the ground upon which we stand, for although from time to time a case is reported as improved or even cured under X rays, still the cases are not in sufficient number to allow us accurately to determine their value in this affection. Finsens' treatment here is undoubtedly disappointing, for although many cases are improved under it, still the improvement comes but slowly, and with a constant tendency to recur. It would appear that the guiding principle in X rays is stimulation of cellular activity, the cells becoming so altered in their molecular consistence as to be prepared for absorption. When we remember the pathology of lupus erythematosus, that it is essentially "an accumulation of blood corpuscles in the dilated capillaries of the papillary layer and the corium with cell infiltration in the neighbourhood of the blood vessels," then we are inclined to think that X rays are specially indicated in this disease. We are not, therefore, without hope that as our knowledge of this mode of treatment widens and improves we may find in Röntgen rays a cure as constant as it is elegant and scientific.

Dr. H. C. HINDER read a paper on "Prostatic Hypertrophy." (See p. 29.)

Dr. THRING thanked Dr. Hinder for his interesting and instructive paper. He noticed that on more than one point Dr. Hinder's observations coincided with his own on matters not sufficiently emphasised in the recognised text books. With regard to the *age* at which prostatic enlargement might take place to such an extent as to cause "residual urine," there is no doubt that this may happen in much younger men than is usually supposed. Dr. Hinder mentioned an instance occurring in a patient. *æt.* 39; he himself had met with one case in which the patient was only *æt.* 36. Of course these were exceptions to the general rule. It had often occurred to him that there were many points of resemblance between prostatic enlargements and uterine fibroids. For instance, of the elements composing prostatic growths, *i.e.*, fibrous tissues, unstriped muscular fibres, and glandular tissue, the first two formed the component parts of uterine fibroids. The relative position of the growths in the male and female was similar, *i.e.*, about the utricle in the male and the uterus in the female. The age at which the growths come into prominence, *i.e.*, during the latter half of the period of sexual activity, roughly speaking of course. And this led one to a further resemblance in the methods of treatment. Lawson Tait originated the practice of removal of the ovaries and fallopian tubes in order to induce atrophy of uterine fibroids—a precisely similar procedure to the removal of the testes in order to bring about atrophy of the enlarged prostate, and again a still further resemblance, in both conditions there were a not inconsiderable number of failures to obtain the desired result. With regard to the treatment of prostatic enlargements *inducing symptoms*, he agreed in the main with Dr. Hinder that operative interference was in perhaps the majority of cases indicated. But on the other hand he would be inclined to make more exceptions than Dr. Hinder did. The general condition of the patient and the state of the bladder and urine must be duly considered. In many instances, a preliminarly use of the catheter for a more or less prolonged period, and attention to the general health, would give a good result either as a preliminary to, or as a substitute for, operative interference. On the other hand he quite recognised that prostatic enlargements did not diminish, but rather increased as years went by. If radical treatment by removal of the obstruction were decided upon, the route to be followed must depend chiefly upon the *shape* and *position* of the growth. And because it was an enlargement of the so-called middle lobe that most often produced symptoms, therefore the suprapubic route would be most often resorted to, but in some cases the perineal route was the best, and in almost all cases the prostate could be reached without a preliminary suprapubic section. He only referred to the practice of removal of the testes to condemn it. It was unscientific and unjustifiable. It meant the removal of healthy organs, and the leaving behind of the pathological condition. Section of the vas deferens was still "sub-judice," and results so far had been very variable. He (Dr. Thring) was interested to find that Dr. Hinder made use of gauze packing within the bladder in order to control the often profuse bleeding. He had himself been induced to practice it because of its utility in controlling pelvic bleeding in the female. The only drawback was that it sometimes caused severe spasm of the bladder. On the whole, while agreeing with Dr. Hinder in the main, he would not be so ready to advocate *immediate* removal of the prostatic enlargement in every case in which symptoms occurred. Dr. Hinder's reference to the usefulness of the cystoscope he thoroughly endorsed.

Dr. **NEILL** said the paper read by Dr. Hinder raises two questions—(*a*) the justifiability of operation, (*b*) the choice of operation. As I understand the tenor of the author's remarks, Dr. Hinder is a thorough-going advocate of operative treatment in prostatic obstruction. Now, as to the first question, operative treatment is advisable if the indications are clearly defined, such as increasing difficulty of catheterisation, frequency of urination unrelieved by catheterisation, recurrent attacks of retention, vesical calculi accompanying prostatic enlargement and such like complications. As to the choice of operation, vasectomy gives variable results, but is worthy of a trial; in the other operations of orchectomy and prostatectomy, the question of mortality is to be considered. Professor White gives 83 per cent. of cases with improvement of symptoms and a mortality of 18 per cent., which he thinks might, with an earlier selection of cases, be reduced to 7 per cent. Dr. Hinder's results of prostatectomy gives 10 to 12 per cent. mortality, but other authorities place it 20 per cent. or higher. Under these circumstances careful consideration is required before advising these operations, but under some such well-defined limitations such as I have indicated, can be properly advised in the presence of advancing and threatening trouble.

Dr. **M'DONAGH** would ask Dr. Hinder what he did in cases of eccentric hypertrophy, which do not cause obstruction to the urine, and what procedure he adopted in cases where the obstruction was suburethral and therefore impossible to reach by the suprapubic method. Prostatectomy is a serious operation, and one should be careful to select suitable cases. Morris lays great stress on the number of cases that can be successfully subjected to this operation, and thinks surgeons will seek a different route—viz., by the perineum, without opening either the urethra or the rectum. Belfield collected 133 prostatectomies, in which there were 29 cases of radical cure, the remainder being relieved for varying periods from six months to two years. Therefore, there are the chances of 4 to 1 that a radical cure will not be effected. In Hunter M'Guires operation the suprapubic opening into the bladder is made as low down as possible, and the patient can voluntarily micturate in any position he assumes through the artificial urethra thus formed. White describes cases in which he employs vasectomy, after extended experience of the various methods. 1. If patient is old, sexual power abolished, foul urine, especially if kidneys diseased. 2. If there is great pain unrelieved by sedatives. He performs castration where renal function not markedly inadequate, but where pain, cystitis and frequent micturition demand some radical treatment. The collected cases of prostatectomies show a mortality of from 15 to 25 per cent.

Dr. **HINDER**, in reply: Dr. Neill's remarks make me quite sure that his late arrival did not permit him to hear the early part of my paper. He accuses me of recommending wholesale prostatectomy and of not laying down the specific conditions under which the operation should be performed. Inasmuch as a fairly large number of cases of prostatic hypertrophy have passed through my hands, and I have only operated in twenty-three cases, and to my knowledge have only recommended it in four cases where my advice was not taken, the accusation may be looked upon as having fairly feeble support. Then, again, it will have been observed by most present that I distinctly and carefully laid down when vasectomy should be performed, and thus conveyed some impression at all events as to what conditions demanded other treatment. The paper was at the outset not intended to be even a complete *resumé* of the treatment usually adopted, but was mainly intended to create an interest in a much-neglected branch of surgery. I might further add that I would emphasise the fact that the presence of residual urine, the inability of the bladder to completely empty itself, is the first step on the downward grade which will surely end in the destruction of this urinary economy. If vasectomy or prostatectomy offer the patient a better chance of living to a useful and enjoyable old age than catheter treatment, then the sentimental objection which is raised against operative treatment should be at once set aside. The difficulty no doubt is this, as I have already endeavoured to point out in my paper: The results of operative procedures are recorded, and these results are the measure of their success or their failure. On the other hand, take any man in ordinary practice, who must necessarily every now and then meet with cases of hypertrophied prostate. What is the result? He either does not recognise the condition or he certainly does not place on record the result of his treatment. The patient dies of chronic or a suppurative nephritis, or the immediate cause of death may be pneumonia or some other condition which forms the final act of the urinary tragedy. At the very most a general practitioner will only be able to tell you of two or three cases treated, with a catheter for instance, and who have lived for years with a fair degree of comfort. Each case must be judged on its merits, but I do not see why operative treatment should not be recommended before the patient has been worried into serious illness by the prolonged presence of residual urine or the septic sequelæ of catheterism. The surgeon's plea is the same in this as it often is in other conditions. Give us the cases early before the patients become physiological wrecks.

Dr. **McDonagh** read a paper on "Sarcoma Occurring in an Ectopic Testis." Also, "Notes on Removal of Undescended Testis Occupying the Inguinal Region." (See p. 20.)

Dr. J. **Macdonald Gill** exhibited some microscopic specimens.

COUNCIL.

The Council met at 121 Bathurst-street, Sydney, on Wednesday, 12th December, at 8.30 p.m. Present: Dr. Coutie (President), in the chair; Drs. Hankins, Brady, Rennie, Jamieson, Crago, Blackwood, Knaggs, Clark, Neill, Worrall, Foreman, Abbott.

The minutes of the preceding meeting were read and confirmed.

Election of members.—Drs. Salter and Mary Booth.

CORRESPONDENCE READ.

Letter from Dr. Creed, recommending to the favourable consideration of the Council the removal of Dr. Ercole's name from the ostracised list of medical men, enclosing letter from Dr. Ercole, stating that he had resigned his position on the People's Prudential and asking to have his name removed from the ostracised list.

Dr. **Knaggs** moved, "That the letter be received, and that the explanation be considered satisfactory, Dr. Ercole having erred through ignorance of the English language and the customs and usage of the profession in the colony, and having, moreover, resigned his position as medical officer to the People's Prudential Benefit Society."

Seconded by Dr. **Neill**, and carried,

Letter from the Sydney Clerks' and Warehousemen's Association.

Resolved, "That the letter accurately sets forth the terms agreed to by representatives of the boards of the two bodies, British Medical Association and Sydney Clerks' and Warehousemen's Association. That whenever these terms are accepted by the members of the Sydney Clerks' and Warehousemen's Association, the Council will intimate to members of British Medical Association that they are at liberty to accept appointments as medical officers."

Seconded by Dr. **Knaggs**—Carried. (Dr. Knaggs retired from the meeting.)

Letters read from Drs. Ashburton Thompson and S. T. Knaggs relating to an editorial which appeared in the *Australasian Medical Gazette* for November.

After some discussion it was resolved that no further notice be taken of the matter in the columns of the *Gazette*.

Accounts passed for payment—W. Pepperday, for printing 650 circulars, £2 4s. 6d.; *Gazette*, £50.

Correspondence—Dr. Springthorpe, *re* O'Hara case, relating to payment for certain type-written circulars.

Moved by Dr. **Hankins**, "That amount be paid by this Branch."

Seconded by Dr. **Jamieson**—Carried.

Dr. **Jamieson** directed the attention of the Council to a very conspicuous advertisement opposite the tram waiting shed at Coogee, which set forth that "nervous and private diseases" were treated by Drs. Freeman and Wallace. He moved that the hon. secretary write to the Inspector-General of Police requesting that the law be put in motion with reference to the same.

The Council met at the Editor's Room on Tuesday evening, 15th January, 1901, at 8.30 o'clock. Present: Drs. Coutie, Hankins, Knaggs, Jamieson, Crago, Rennie, Abbott, Clark, Thring, Worrall, Neill.

The minutes of the previous meeting were read and confirmed.

Letter was read from the Hon. Secretary of the Civil Ambulance Association regretting the unauthorised publication of the names of certain of their lecturers.

A communication from Dr. Purser, asking for the use of the Branch room for meeting of the Queen Victoria Consumptives' Home Committee. Permission was granted.

The following members were elected:—Dr. J. W. Kennedy, Hay; Dr. W. J. Morton, Inverell; Dr. W. R. Olver, North Sydney.

CORRESPONDENCE.

Letter from the Hon. Secretary of the Branch to the Secretary of the Clerks' and Warehousemen's Benefit Society in terms of the resolution of the Council passed at the last meeting.——Reply from the Secretary of the Clerks' and Warehousemen's Society, accepting on behalf of the members the terms of the Council, and submitting a list of medical officers.

Resolved that the action of the Hon. Secretary in giving a certificate to the effect that the Sydney Clerks' and Warehousemen's Benefit Society is now open to the members of the Branch, be endorsed.

Letter from Dr. G. A. Syme, late President Victorian Branch, with reference to the resolution passed by the Home Association on the O'Hara case, was read.

Resolved that the letter be received, and Dr. Syme informed that this Council is not disposed to interfere any further in the matter.

The **Hon. Treasurer** reported that the credit balance of the Branch for the year was £174 7s. 8d.

The subject of the signed articles appearing in the Commonwealth number of the *Daily Telegraph*, of January 2nd, was brought under the notice of the Council. After discussion, in the course of which it was recognised that the practice in question might easily degenerate into a most objectionable form of self-advertisement, it was

Resolved—"That the attention of the Council of the New South Wales Branch of the British Medical Association having been called to a series of articles in the Sydney *Daily Telegraph* of January 2nd, 1901, over *fac-simile* signatures of the authors, the Council regrets to find that some of the contributors are members of this Branch. The Council considers it undesirable that signed articles on medical subjects should appear in the lay press."

Resolved,—"That the foregoing resolution be forwarded to the authors of the signed articles who are members of the Branch, with the expression of a hope that each contributor will offer some explanation as to the appearance of his signature."

MRS. E. H. ROBISON née McEWEN, late of Prince Alfred Hospital, Sydney, and Matron, Mudgee Hospital, ANNOUNCES TO THE MEDICAL FACULTY, that she (having lately returned from Dr. Otto Walther's Sanatorium for Consumptive persons at Nordrach, Black Forest, Germany) HAS ESTABLISHED A SANATORIUM upon similar lines AT LEURA, BLUE MOUNTAINS, New South Wales. Terms on application.

"LYNTON," LEURA.

VICTORIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

◆

THE annual meeting of the Branch was held at the Vienna Café on Wednesday evening, December 19th, 1900. The President (Dr. Neild) occupied the chair. About forty members were present.

The HON. SECRETARY (Dr. Vance) read the following report of the Council :—

"MR. PRESIDENT AND GENTLEMEN—

"In presenting to you the annual report your Council regret that the past year has not, on the whole, been a very successful one for the Association. They, however, trust, and have every reason to believe, that now the O'Hara inquiry has been disposed of by the parent Council, the Branch will widely extend its scope of usefulness.

"During the year, besides the members who resigned, death robbed us of two members, who could ill be spared from the community, Captains Hall-Owen and Hopkins falling victims in South Africa to enteric fever.

"Early in the year Dr. Harricks, who was proceeding to England, was elected our representative on the parent Council; as such he attended the Annual Congress of the Association.

"As the Hall of the Medical Society was found to be most inconveniently situated for the bulk of the members, your Council arranged with the Austral Salon Committee for the use of their room, with very satisfactory results.

"A number of most interesting papers were received during the year, the discussion on them being most useful and well sustained. The Branch is greatly indebted to the various authors for the time and trouble they expended in preparing their notes.

"Your Council leave it as a suggestion to their successors that the opinion of the members be asked as to the advisability, or otherwise, of our originating a scheme of medical defence.

"Your Council, in retiring, thank the members for their generous support during the year, and beg one and all to put their shoulder to the wheel and make the Victorian Branch as it should be, the most powerful and influential one of the British Medical Association.

"W. B. VANCE, Hon. Secretary."

Dr. HENRY, in moving the adoption of the Council's report, said that he congratulated the Branch at being able, during a stormy and critical period of its existence, to have done so much work. It augured well for the future activity and tone of the Branch. If members would only co-operate with the Council, in a very short time the recent prominent and influential position of the Branch would be regained.

Dr. CUSCADEN seconded the motion, which was then carried.

Dr. CUSCADEN, the Hon. Treasurer, then read the following balance-sheet, which, on the motion of Dr. MACANSH, seconded by Dr. WEIGALL, was carried :—

STATEMENT OF RECEIPTS AND EXPENDITURE TO 31ST DECEMBER, 1900.

DR. CR

RECEIPTS.	£	s.	d.
To Balance, April 30th, 1900	168	3	6
" Subscriptions, 1899	3	13	0
" Subscriptions, 1900	93	19	6
" Subscriptions, Ballarat Branch	57	0	0
" Interest on Savings Bank Deposit	3	3	4
Total Receipts	£325	19	4

EXPENDITURE.	£	s.	d.
By Drafts to Sydney and London for *British Medical Journal* and *Gazette*	149	11	1
" Commission on same	1	0	11
" Rent, Medical Society of Victoria	8	0	0
" Rent, Austral Salon	4	12	0
" Cable	2	8	6
" Tuberculosis Commission	0	13	6
" Treasurer	1	0	0
" Secretary, Stamps, Petty Cash, &c.	4	17	0
" Stillwell and Co., Printing, &c.	27	13	6
" Letter Press	1	4	0
" Commission on Cheques	0	7	0
" Balance	124	11	10
Total Expenditure	£325	19	4

STATEMENT OF ASSETS AND LIABILITIES.

ASSETS.	£	s.	d.
Amount deposited in Savings Bank	103	5	9
Balance at Bank of Australasia	21	6	1
Sale of Furniture, late Hon. Secretary	7	9	9
Total	£132	1	7

LIABILITIES.
Nil.

G. W. CUSCADEN, HON. TREASURER.

"MR. PRESIDENT AND GENTLEMEN—

"I have much pleasure in presenting to you my balance-sheet and statement of accounts for the year ending December 31st, 1900. Owing to my assuming office on April 30th the balance has been struck from that date.

"We have no liabilities, and we commence the year 1901 with a credit balance of £132 1s. 7d.

"G. W. CUSCADEN,
"Hon. Treasurer."

The following members were unanimously elected to the Council:—Drs. J. E. Neild, H. W. Bryant, W. Macansh, R. Ramsey, R. E. Weigall, C. Dyring R. Willis, W. B. Vance, G. W. Cuscaden, and L. Henry.

The Council, having retired, elected the office-bearers:—President, Dr. J. E. Neild; Vice-President, Dr. W. Macansh; Hon. Treasurer, Dr. G. W. Cuscaden; Hon. Secretary, Dr. W. B. Vance; Local Editor, Dr. L. Henry.

The PRESIDENT (Dr. Neild) then read an address on "Progressive Medicine." (See page 1.)

Dr. MACANSH, in moving a vote of thanks to the President, said that to him the address had been a revelation of what was done in olden times. He had no conception that their predecessors had gone through such a rough curriculum, and he was glad that his fate had been to live in better times. He hoped that in future there would be greater *cameraderie* among the members of the Branch, and that we should look towards maintaining the best interests of the profession, and if a brother professional made a mistake we should attempt to bring him back into the fold, and not strive to drive him outside. What we desired was good fellowship, and we should never forget that existence was a hard struggle.

Dr. CUSCADEN seconded the motion, and expressed himself as pleased, after hearing the address, that he was not living in the good old times. Immense strides were being made each day in the sciences of medicine and surgery, and greater discoveries in all the sister branches were conspiring to render the end of this century a memorable one. He need only refer to antiseptics and the antitoxines. Where at one time he felt helpless in dealing with many of his cases, he possessed now cheerfulness and confidence in his treatment. He trusted that as the outgoing century had discovered a treatment for diphtheria that the incoming one would be associated with the discovery of a successful treatment for cancer.

After a short reply from Dr. NEILD, the members partook of supper. The chief toasts were: "The President," by Dr. Nyulasy; the "Coroner, Mr. G. C. Morrison," by Dr. Willis; "The Branch," by Dr. Lulham; "The Medical Profession," by Mr. Deegan; and the "Hon. Secretary," by Dr. Henry.

WELCOME TO THE RETURNED MEMBERS OF THE N.S.W. ARMY MEDICAL CORPS.

A MEETING of the medical profession was held at 121 Bathurst Street, Sydney, on Wednesday, 16th January, to consider the best form of doing honour to the medical gentlemen who have lately been engaged on active service in South Africa. Present—Dr. F. Norton Manning (in the chair), Drs. Goode, Coutie, Hankins, Knaggs, Crago, L. H. Harris, Faithfull, Taylor Young, Spencer, Palmer, Bennet, Odillo Maher, Grieves, MacCulloch, Mullins, Dixson, E. Chisholm, McIlroy, Barrington, Kirkland, G. Armstrong, Jas. Graham, McMurray, Neill, H. W. Smith, Worrall, Sinclair Finlay.

Letters, regretting inability to attend the meeting, but expressing hearty appreciation of its object, were read from Drs. West, Rorke, F. H. Quaife, W. Chisholm, Carruthers, Creed, Blaxland, Jas. Lamrock, S. Jamieson, Gledden, Cohen, Maguire, Pickburn, Furnival, McDonagh, Jarvie Hood, Brady, Pockley, Bucknell, Mackellar, R. Bowman.

The Chairman having read the circular calling the meeting, invited those present to make suggestions.

Dr. CRAGO moved,—"That the members of the medical profession who have lately returned from active service in South Africa be entertained at a banquet, to be held at the Australia Hotel about the end of February."

Seconded by Dr. KNAGGS.

After some discussion,

Dr. GRAHAM moved as an amendment,—"That the medical gentlemen who have returned from active service be entertained at a public 'At Home' or conversazione, the exact form of which to be determined by a committee to be appointed to carry out all the necessary arrangements connected therewith." Dr. Graham stated that the Town Hall would be available for that purpose.

Seconded by Dr. GOODE, and carried.

Dr. CRAGO proposed—"(*a*) That a committee, consisting of the following gentlemen, with power to add to their number, be appointed to make the necessary arrangements; (*b*) that the committee have power to appoint an executive or sub-committee. Carried.

Committee: Dr. P. Sydney Jones, Hon. H. N. MacLaurin, Dr. F. Norton Manning, Dr. Jas. Graham, Professor Anderson Stuart, Drs. Coutie, Foreman, F. H. Quaife, A. J. Brady, S. T. Knaggs, Hankins, T. S. Dixson, C. P. B. Clubbe, S. Maguire, W. H. Goode.

(*c*) That Drs. Knaggs and T. S. Dixson be appointed hon. secretaries, and Drs. Hankins and Foreman hon. treasurers.

Dr. MULLINS proposed that Dr. Crago's name be added to the Committee. Carried.

OBITUARY.

THE deaths of the following practitioners are announced:—

RALPH CULLINAN, L. & L., M.D., F.P.S. Glas. 1864, was thrown from his horse and killed at Bethanga, Vic., on January 2nd.

ALEXANDER JACK, M.B., C.M. Glas. 1884, of Townsville, Q.

LEONARD ROBINSON, M.D., Ch.M. Royal University, Ireland 1882, of Gladstone, Q., on December 23, 1900.

ARTHUR WILLIAM SANDFORD, L. and L.M., R.C.P. and S. Edin.; L.F.P.S.E. 1887, late of Port Melbourne, Vic.

PATRICK SMITH, B.A., M.B. 1867, M.D. Syd. 1870, formerly Medical Superintendent at Dunwich Asylum, Q., died at South Brisbane in December.

HENRY RICHARD WRIGHT, M.B., C.M. Edin. 1867, died at Mitchell, Q., on November 16th.

MR. BRUCK, importer of surgical instruments, 15 Castlereagh-street, Sydney, shows the finest assortment of Aseptic Surgical Instruments seen on this side of the line. Mr. Bruck guarantees every instrument, and as he does not employ travellers he is enabled to sell at specially low rates, as shown in his price-list, which may be had on application to Mr. Bruck.

NOTICES.

ORIGINAL ARTICLES WILL BE INSERTED SOLELY ON CONDITION THAT THEY ARE NOT CONTRIBUTED TO ANY OTHER PERIODICAL.

All communications intended for publication may be addressed "The Editor, Australasian Medical Gazette, 121 Bathurst Street, Sydney," or to the Branch Editors for the other colonies.

Contributors will have to pay the cost of illustrations accompanying their articles.

The Australasian Medical Gazette and the British Medical Journal are supplied to all Financial Members of the New South Wales, South Australian, and Victorian Branches Free of Cost.

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EDITOR'S LIBRARY.

THE LIBRARY OF THE EDITOR OF THE "AUSTRALASIAN MEDICAL GAZETTE," 121 BATHURST STREET, SYDNEY, IS NOW OPEN TO ALL MEMBERS OF THE BRITISH MEDICAL ASSOCIATION, FROM 2 TO 5 P.M EVERY WEEK DAY, HOLIDAYS EXCEPTED.

SPECIAL NOTICE.—ORIGINAL ARTICLES FOR INSERTION IN THIS "GAZETTE" SHOULD REACH THE EDITOR ON THE 3RD, OTHER COMMUNICATIONS NOT LATER THAN THE 7TH, AND CORRECTED PROOFS ON THE 12TH OF EACH MONTH. FAILING THIS, THE EDITOR WILL NOT BE RESPONSIBLE FOR NON-INSERTION OR PRINTERS' ERRORS. VERY LENGTHY COMMUNICATIONS WILL ONLY BE INSERTED WHEN SPACE PERMITS.

THE AUSTRALASIAN
MEDICAL GAZETTE.

EDITED FOR THE PROPRIETORS BY
SAMUEL T. KNAGGS, SYDNEY, N.S.W.;
AND FOR THE OTHER BRANCHES OF THE
BRITISH MEDICAL ASSOCIATION BY
A. B. BROCKWAY, BRISBANE, Q.; L. HENRY,
MELBOURNE, VIC.; J. B. GUNSON,
ADELAIDE, S.A.; AND J. MASON, OTAKI, N.Z.

SYDNEY, 25TH JANUARY, 1901.

EDITORIALS.

THE PAST CENTURY IN MEDICINE AND SURGERY.

◆

IT is almost impossible to detail fully in a brief Editorial the vast strides made in medicine, surgery and allied sciences during the past century. It must be admitted that the greatest progress in these subjects has been initiated and advanced by the revolution caused by the progress made in practical pathology, histology, and bacteriology. The field of clinical investigation of disease has been thoroughly explored, and contributions have been made to it by means of thermometers, electricity, Röntgen rays, serums, antiseptics and aseptic treatment. Not only have all of the means necessary for the treatment of disease been exploited, but the anticipation and prevention of the same have also been exhaustively studied, with the result that preventive medicine, hygiene and public health have been brought to a condition almost approaching perfection.

In addition to these factors, a powerful help has been acquired by the investigation and practice of the inoculation of serums against such diseases as typhoid fever, small-pox, malaria, plague and other specific disorders. The treatment of tuberculosis by the anti-toxin inoculation of Koch has not attained the success which was anticipated; but the open-air treatment of consumption suggested and practised by Continental authorities has raised anticipations that within the near future this dire disease will be held in check.

With reference to surgery, the innovations which have been made during recent years have completely changed the methods previously adopted, and the scope of this subject has been advanced in a most marvellous manner.

John Hunter was the first scientific observer in the art of surgery who established it upon the true basis of observation and experience. Notwithstanding the impetus given to surgery by his personality, he and his contemporary colleagues regretfully admitted that the surgery of their period was a comparative failure.

The surgical operations at that time were few in number, and only performed when inevitable. Subjects of serious operations which were performed in hospital died of such infective diseases as erysipelas, pyæmia septicæmia and hospital gangrene, the knowledge and treatment of which was then comparatively unknown, and remained so until the year 1860, when a persistent outbreak of these disorders in his wards stimulated Joseph (now Lord) Lister to original research and caused him to plan his glorious reform in the adoption of antiseptics in surgical treatment. It is impossible to estimate the amount of good done to suffering humanity by this illustrious man whose achievement shed such lustre on the past century, and will without doubt further illuminate the present one.

Exactly a century ago (in 1800) Sir Humphrey Davy discovered the anæsthetic properties of nitrous oxide gas and suggested its utility in surgical operations, and it was tried in dental practice with partial success. The pain-preventing properties of sulphuric ether were discovered by Faraday in 1818, but were not utilised until 1846, when Morton in America used it in surgical practice.

The most glorious achievement of the century, however, was the utilisation of chloroform as an anæsthetic by Sir James Simpson in 1847. In the latter part of the nineteenth century, with the aid of improved appliances, and guided by experience in the use of nitrous oxide gas, ether and chloroform, these anæsthetics have become indispensable and are in daily use. By their means untold benefits are conferred upon mankind. In their use there is now no anticipation of suffering, shock is diminished, the agonies caused by the knife are prevented, and the patient is oblivious to all the details of the operation during its performance.

The use of anæsthetics and the subsequent utilisation of Lister's discoveries in antiseptic surgery, combined with the result of the more recent researches in bacteriology, gave a new impetus to surgery. Operations hitherto deemed impracticable are now performed with success, and exploratory operations for the sake of confirming diagnosis are daily in vogue, and it may be asserted that in these days surgery as an art has approached as nearly as possible the precincts of an exact science.

INCREASE OF POPULATION THROUGH A DIMINISHED DEATH-RATE.

The subject of the steadily decreasing birth-rate in Australia has received considerable attention of late, though perhaps not as much as its importance demands. Economically, the question whether there shall be five or twenty million inhabitants in Australia is of little moment, but from the political standpoint—what with Russia, Germany and France becoming Pacific powers, and the yellow peril looming up again as a possibility of the future, a population sufficiently large to discount any thought of invasion is a vital necessity. There cannot be the slightest doubt but that the decline in the birth-rate is due mostly to the artificial preventions of conception. And it is only natural to expect that this factor will act more potently as the knowledge of the means for preventing conception becomes more widely spread. It is impossible to imagine any method, legal or otherwise, of putting a stop to these artificial checks, and it is questionable, moreover, if any such interference with the liberty of the subject would be justifiable. We must fall back, therefore, on some other way of increasing our population. One way popular in the past has been State aided immigration. But this has gone out of favour, and it is doubtful if any State Government would dare to revive it on a large scale.

There remains, however, one other method by which an increase of population may be ensured. It consists not in increasing the birth rate, but in diminishing the death rate. The truth of this has been recognised and acted upon in France, where fanciful proposals as to the taxing of bachelors and the offering of bonuses for large families have given way to the solid work of seeking to save a proportion of the children who die in infancy from preventable causes. It would be well if those in authority in this community would give consideration to this matter.

Here are some facts that should afford food for reflection. In 1890 the total births in New South Wales amounted to 38,960, in 1899 to 36,461. During this period, between 1890-1899, the population of the colony had increased from 1,121,000 to 1,345,000. And so the birth rate had fallen from 35 per 1000 in 1890 to 27 in 1899.

These figures show that there were actually 2,500 fewer children born in 1899 than in 1890. But to pass from the birth to the death rate, 4,329 infants below one year of age and 5,762 below the age of five years died in 1899. And it is certain that at least half of these children died from preventable causes.

If then 2,500 of these infants could have been saved, it would have gone a good way towards counterbalancing the decrease in the birth-rate.

But how are the lives of these infants to be preserved?

The solution of this problem lies in educating the persons who have charge of them and to whose ignorance of the feeding and hygiene of the young, the apalling infantile mortality is due. If, as Dr. Ashby says, "we can clear away these ignorant customs and prejudices, which have become sacred through long descent" we will speedily reduce the mortality during the first year of life to normal limits.

Any attempt to do this must be on so widespread a basis as to influence practically all in the community who are responsible for the care of infants. Of course, it is out of the question to institute a great State-department for this object, nor is such a department necessary.

The organisation for giving the needful instructions already exists in the public school system of the colony.

There is no reason why all the elder girls who pass through the schools should not receive thorough instruction in the care and management of infants.

Many of them are at present taught cookery, and if this is considered to be a fit subject to be dealt with at school, that of the management of infants is even more called for. Once the necessity of giving this teaching was admitted, the methods of doing so could be easily worked out. A certain number of the female teachers might be induced, by offer of a bonus, to qualify themselves in this subject by attending a course of lectures and demonstrations given by one or more medical men.

The teachers in their turn could have charge of classes of the elder girls, to whom they could impart a sound elementary knowledge of the proper feeding, clothing and general hygiene of the infant. Of course it may be urged that it would be intolerable to burden the girl of fourteen years with this knowledge, bringing at this age the "shadows of the prison house" upon her. It would probably be found, however, that most young girls would take far more interest in this matter than in history or arithmetic, and even if it were not so, there is no time for delay. Only at this time can *all* the possible future mothers of the community be influenced.

It must be realised, too, that many of these girls in the poorer classes, at least, are already in charge of infants at home, or will go into domestic service as nursemaids immediately they leave school The value of this teaching would be evident in these cases.

One other suggestion might be made. It is that a small handbook on infants be issued by the Public Health Department, and that a copy of it be given tc each person who registers the birth of a child. It will be only by persistent and organised effort in some such way as here suggested that the reproach of this frightful death rate among the little ones can be removed from this community, and an increase of population ensured.

HUDSON'S "EUMENTHOL" JUJUBES (Registered) are a Gum Jujube containing the active constituents of well-known Antiseptics, Eucalyptol, Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-Borate of Sodium, etc., and exhibit the antiseptic properties in a fragrant and efficient form. Sold by all chemists, tins 1s. 6d. Are Antiseptic, Prophylactic, reduce Sensibility of Mucous Membrane.

Mr. W. A. Dixon, F.I.C., F.C.S, Public Analyst of Sydney, after making exhaustive tests, says: - "There is no doubt but that "Eumenthol" Jujubes have a wonderful effect in the destruction of bacteria and preventing their growth. . . . I have made a comparative test of "Eumenthol" Jubjues and Creasote, and find that there is little difference in their bactericidal action."

LETTERS TO THE EDITOR.

DR. LOUIS HENRY ON ORAL SEPSIS.

(*To the Editor of the Australasian Medical Gazette.*)

SIR,—In Dr. Louis Henry's useful and thoughtful paper, published in your issue of December 20th, there are some points which I think require explanation, otherwise the impression may be conveyed that in the treatment of enlarged tonsils "complete excision" is an operation generally performed.

Such a result by the ordinary methods of tonsillotomy is impossible. Only the redundant portion of the tonsil is removed, and the patient is left with a tonsil of physiological size. Although healthy tonsils may be useful as a "first line of defence, like a military outpost, to resist attacks from hostile forces," no one of any experience will deny that diseased ones become a source of danger. The outpost has now fallen into the hands of the enemy, and forms an easy pass for the invaders, who will proceed to occupy the next line of defence—the cervical glands—with tubercle bacilli or other dangerous foes. I hold that tonsils with diseased crypts filled with caseous deposits ought to have the diseased portions removed, both on account of the local inconvenience which they cause and the danger which they are to the system generally.

From my observation of the effects of hypertrophy of the adenoid ring in the throat and naso-pharynx of children, I have long held the opinion, in common with Dr. Henry, that this tissue affords an internal secretion to the economy. When the secretion is normal in amount it is useful, but when it is in excess it is harmful, as in the case of the thyroid gland, where excessive activity is attended with the symptoms of Graves' disease. The great improvement in the general health of children which follows the removal of adenoids of the naso-pharynx and of hypertrophied tonsils, can hardly be explained on mere mechanical grounds. We see the pale, languid, dull child grow ruddy, active and bright. The very great and rapid improvement in health leaves no doubt on the mind of parents or surgeon that the operation has been most beneficial. Whole flights of swallows of this description are the yearly experience of those who treat these cases, not the solitary one seen by Dr. Henry, where a child seemed to be rendered liable to coughs and respiratory troubles by ablation of the tonsils.

I am, Sir, yours obediently,
A. J. BRADY,
Hon. Surgeon Sydney Hospital,
Department for Diseases of the
Ear, Nose and Throat.

3 Lyons' Terrace,
December 27th, 1900.

PAYMENT OF MEDICAL WITNESSES.

(*To the Editor of the Australasian Medical Gazette.*)

SIR,— In recently looking over some old numbers of *The British Medical Journal*, I came across the following, which speaks for itself:—

"THE PAYMENT OF MEDICAL WITNESSES.—At the Munster Winter Assizes, held at Dublin on December 11th, Judge O'Brien, referring to the stinginess of the Treasury in paying medical witnesses at assizes two guineas a day, said he would not require the services of any medical man under three guineas daily, railwayfare, and expenses. The Treasury, whoever they were, whether clerks in this country or elsewhere, had a great opinion of their own power, and constantly asserted it, but he would assert his also. He instructed the Crown Solicitors to inform the Treasury if they had any fear of being surcharged, that he announced that witnesses must be paid properly, and he would treat as contempt of court any disobedience of his directions. This emphatic declaration should be of great value, and we trust it may form a precedent of extended value."

What different treatment is meted out to medical witnesses in the "Land of the Golden Fleece," where *every* class, except the medical profession, is *better* paid than in the United Kingdom?

As your readers are aware, a medical man has to travel ten miles and give evidence at an inquest for one guinea! If over ten miles the medical witness is munificently allowed "one shilling (1s.) per mile (one way only)" for every mile "*above*" ten miles, while the fee for attendance at quarter sessions is only one guinea a day and one guinea for giving evidence, railway fare, and *no expenses!*

What a pity none of our judges will take the stand taken in favour of medical witnesses by their Irish brother, Judge O'Brien!

Yours, &c.,
M. D.

CONTRACT MEDICAL PRACTICE.

(To the Editor of the Australasian Medical Gazette.)

SIR.—Your editorial, "Shoulder to Shoulder," in last month's number of the *Australasian Medical Gazette*, emphasizing the need for more perfect union and organisation of the profession, in face of the agression of lodges, should appeal to every doctor in Australia.

I know that it is possible to practise in the country for a number of years without lodges, and as a specimen of that nearly extinct species of doctor perhaps you will give me space for a few remarks.

I have read with interest letters in your columns depicting the woes of the G.P., mainly owing to abuse of contract practice, and advocating reform.

I quite recognise the necessity for working men, the proper number of lodges, to combine for the cheap payment of medical services; but most of us are now agreed that there should be a wage limit, as well as reform of other abuses of lodge practice. I may inquire whether clubs without a wage limit may be classed as "prejudicial to the interests of the profession?"

And yet every vacant lodge appointment is greedily sought. Surely, owing to petty rivalry and disunion, our chief enemies are those of our own household. My medical neighbours all have lodges, not because they like them, but because they dread the competition of an interloper if they resign them.

The remedy, Mr. Editor, is, as you forcibly point out, vigorous organisation of the profession. The B.M.A. in Sydney deserves the thanks of us all for their efforts towards this end, and their Permanent Investigation Committee will help to safeguard our interests in New South Wales.

1. But on the eve of a new century, and a new era, would it be possible to accomplish the federation of doctors throughout Australia? If the vacant lodges in any town can get fresh doctors to do their badly paid work, is not federation between the colonies necessary? putting aside the moral suasion of a united profession.

2. Since the B.M.A. exists for the interests of the whole profession, surely every medico should join it, or show the reason why he refuses. I do not advocate the boycott of recalcitrant members, who will not join; but more energetic persuasion could be employed, especially in the case of newly fledged medicos, who eagerly look for openings for practice.

3. Since one of the chief bars to organisation is the apathy of the rank and file, especially in the country, would it be possible to employ local or even paid organisers?

4. Some years ago Dr. Creed, then president of the B.M.A., suggested the scheme of an indemnity fund to recompense those doctors who resigned lodge appointments, where their lot was flagrantly miserable, or where sweating was prevalent.

Whether this would be advisable or feasible is a problem for wiser heads than mine. I make these crude suggestions for what they are worth. And as a surviving remnant of a species of G.P. soon to be extinct, I subscribe myself, Yours faithfully, DODO.

MEDICAL NOTES.

The Colonial Secretary of N.S.W. has appointed the following gentlemen to be members of the Dental Board, in terms of section 3 of the Dentists Act:—James Graham, M.D., M.S., M.P. (president); Edward Johnson Jenkins, M.D., M.R.C.P., M.R.C.S.E.; Alfred Burne, D.D.S.; E. Reading, George Vern Barnett, Henry Peach, D.D.S., Wm. Joseph Trickett, M.L.C., George Norton Russell.

The Mayor of Sydney (Dr. James Graham, M.L.A.) entered upon his duties on January 1, 1901.

The medical officers now in Australia in charge of the Imperial and Indian contingents are—Major J. Scott, I.M.S., Captain P. H. Whiston, R.A.M.C., and Lieutenant Dermott Hyde, R.A.M.C. Major Philson, I.M.S., accompanied his Excellency the Governor-General from India.

MILITARY INTELLIGENCE.

NEW SOUTH WALES.

HIS Excellency the Lieutenant-Governor, with the advice of the Executive Council, has been pleased to approve of the following appointments, promotions, &c., in the New South Wales Military Forces, viz.:—*New South Wales Army Medical Corps* (Partially-paid Establishment).—Captain Clifton Sturt is transferred from Volunteer Establishment, to date from 1st July, 1899. Volunteer Establishment.—Captain Clifton Sturt is transferred to the Partially-paid Establishment, to date from 1st July, 1899; Lieutenant William Macdonald Helsham, to be Captain; Lieutenant Robert Dickie McMaster, to be Captain; Lieutenant Lloyd Davenport Parry, to be Captain; Lieutenant Edward James Schuldham Spark resigns his Commission. The cancellation of Commission issued to Lieutenant Robert James Morice.

His Excellency the Lieutenant-Governor, with the advice of the Executive Council, has been pleased to approve of the resignation of Lieutenant Francis William Kane, Medical Officer, New South Wales Imperial Bushmen's Contingent,—to date from 21st October, 1900.

NEW ZEALAND.

His Excellency the Governor has been pleased to approve of the under-mentioned appointment:—*New Zealand Volunteer Medical Staff*, Bernard Volckman to be Surgeon-Captain.

His Excellency the Governor has been pleased to accept the resignation of the commissions held by Leonard Boor, V.D., as Surgeon in the New Zealand

Militia, and Brigade Surgeon Lieutenant-Colonel in the New Zealand Volunteer Medical Staff. Date of resignation, 15th October, 1900.

His Excellency the Governor has been pleased to accept the resignation of the commission held by the under-mentioned officer:—*New Zealand Volunteer Medical Staff*, Surgeon-Captain Patrick Wood Hislop.

QUEENSLAND.

His Excellency the Governor has been pleased to direct that Captain Robert Beveridge Huxtable, M.B., *Army Medical Corps*, *Q.D.F.*, be placed on the Unattached List (Defence Force Division) of the Queensland Defence Force (Land) as from the 13th December, 1900.

His Excellency the Governor directs it to be notified that he has been pleased to appoint Major The Honourable Charles Ferdinand Marks, M.D., to be a Lieutenant-Colonel in the Army Medical Corps of the Queensland Defence Force (Land); this appointment to take effect from the 1st January, 1901.

CHANGE OF ADDRESS, ETC.

BELL, Dr. H. T. S., has removed from Brisbane to Tumbulgum, Tweed River, N.S.W.

CALDER, Dr. F., has removed from Forbes to Rockhampton, Q.

DERAVIN, Dr. A. F., has removed from Launceston, Tas., to Fremantle, W.A.

MACHATTIE, Dr. T. A., of Bathurst, N.S.W., has returned from South Africa. Dr. Machattie, who served as captain in the Australian Bushmen's Contingent, was wounded on service, but has now almost regained his health.

MARCHESINI, Dr. G., has commenced practice at Henty. N.S.W.

McDONNELL, Dr. E. P., of Forbes, N.S.W., has returned from active service in South Africa.

NEWMARCH, Dr. B. J., of North Sydney, has returned from South Africa, where he has been on active service with the N.S.W. Army Medical Corps.

PARDEY, C. W., M.B., Ch.M., has commenced practice at William Street, Sydney.

PAUL, Dr. G. W. F., has commenced practice at Townsville, Q.

PERKINS, Dr. A. E., of Marrickville, N.S.W., has returned from active service in South Africa and has resumed practice.

THOMAS, Dr. G. H. W., has removed from Mareeba to Chillagoe, Q.

WILLIAMS, Colonel W. D. C., P.M.O. of the N.S.W. Military Forces, has returned to Sydney from South Africa.

MEDICAL APPOINTMENTS.

THE following medical appointments are announced:

Bassett, W. F., L.R.C.S.E., to be Deputy Licensing Magistrate for the District of Bathurst, N.S.W.

Blick, Graham, to be District Medical Officer, &c.. at Broome, W.A

Callan, P., L.R.C.S.I., to be Public Vaccinator for District of Thames, N.Z.

Clemons, Dr. G. E., to be Hon. Medical Officer to the Launceston General Hospital.

Holmes, Dr. L. S., to be Hon. Medical Officer to the Launceston General Hospital.

Kelly, W. A., F.R.C S.I , to be Government Medical Officer, &c., at Wingham, N S.W.

Liddell, G., M.B., to be Public Vaccinator for the District of Otepopo, N.Z.

Littlejohn, E. S., B.A., M.D., C M., has been appointed Visiting Medical Officer Thomas Walker Convalescent Hospital, Concord.

MacBirnie, S., M.B., to be Medical Superintendent to the Yarra Bend Lunatic Asylum, Vic.

Mason, J. M., M.D., D.P.H., to be Chief Health Officer in New Zealand.

Morris, W. P., M.D., to be Assistant Medical Inspector in the Department of Public Health, Vic.

Pardey, Dr. J. McI., to be Hon. Medical 'Officer to the Launceston General Hospital.

Parker, Dr. Chas., to be Hon. Medical Officer to the Launceston General Hospital.

Patton, Dr. A. S., to be Surgeon to the Normanton Hospital, Q.

Roe, Dr. J. M., to be Surgeon to the Hospital at Mareeba, Q.

Shand, J. C., M.B., to be Government Medical Officer, &c.. at Penrith, N.S.W.

Shorter, H. L. A., M.B., to be Medical Officer at Mt. Garnet, Q.

Stevens, Dr. W. W., to be Junior Medical Officer in the Lunacy Department, N.S.W.

Taylor, C J., M.B., to be Medical Officer at Georgetown, Q.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

THE following persons have been duly registered as legally qualified medical practitioners in their respective colonies:—

NEW SOUTH WALES.

Bartlett, William, Mem. R. Coll. Surg. Eng. 1873.

Bell, Hugh Thomas Symes, Mem. R. Coll. Surg. Eng. 1896; Lic. R. Coll. Phys. Lond. 1896; Fell. R. Coll. Surg. Eng. 1898.

Broad, William, M.B., Bac. Surg. 1899, Univ. Glas.

Harris, John, M.D. 1900, Bac. Surg. 1898, Univ. Dubl.; Lic. R. Coll. Phys. Lond. 1898; Mem. R. Coll. Surg. Eng. 1898; Dip. Publ. Health, R. Coll. Phys. Surg. Eng. 1900.

Marchesini, Giuseppe, M.D. Univ. Siena 1900

NEW ZEALAND.

Shepherd, Thomas Scott, M.R.C.S. Eng., L.R.C.P. Lond., M.B., B.S. Univ. Camb.

QUEENSLAND.

Calder, Frank, Lic. R. Coll. Phys. Lond. 1888; Mem. R. Coll. Surg Eng. 1888; M.B. 1889 Univ. Lond.

Edgelow, Samuel Henry, Mem. R. Coll. Surg. Eng. 1877.

SOUTH AUSTRALIA.

Muir, Robert Sibbald, L.R.C.P. & S., L.F.P.S. Glas. 1899.

TASMANIA.

Ellis, Heber Dowling, M.R.C.S. Eng. 1861; L.S.H. Lond. 1863 M.B., C.M. Aberd. 1879; M.D. Aberd. 1880.

VICTORIA.

Pinchin, Joseph Leonard, L.R.C.P. & S. Edin., L.F.P.S. Glas. 1895.

WESTERN AUSTRALIA.

Deravin, Arthur Francis, M.B., B.S. Melb. 1899.

BIRTHS AND DEATH.

BIRTHS.

BROINOWSKI.—On the 26th November, at Hay, N.S.W., the wife of G. H. Broinowski, M.B., of a son.

KEARNEY.—On the 27th December, 1900, the wife of A. D. Kearney, L.R.C.P., L.R.C.S. Edin., L.R.C.S. Glas., of a daughter.

MARKS.—On the 4th January, 1901, at Woollahra, Sydney, the wife of Dr. Herbert J. Marks, of a son.

STANLEY.—On tho 26th December, at her residence, Marius-street, Tamworth, N.S.W., the wife of Dr. G. P. Stanley, of a son.

DEATH.

HALFORD.—On the 9th December, at Brisbane, Grace Millar, dearly beloved daughter of Dr. A. C. F. and N. Halford, Clermont, C.Q.; aged 11 months.

AUSTRALASIAN MEDICAL GAZETTE.

ORIGINAL ARTICLES.

PRESIDENTIAL ADDRESS.

By John Thomson, M.B. et. Ch.M., Etc,
Brisbane, (Q.)

Read at the Annual Meeting of the Queensland Branch of the British Medical Association, February 8th, 1901.

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The honor of the Presidential chair carries with it the penalty of the Presidential Address. Such was the usage! Such is the law!! But if the matter could only be viewed in the proper light it would be seen that the penalty weighs most heavily on the audience, for the infliction is theirs; they have to suffer.

During the past twelve or fifteen months a fair amount of my spare time has been devoted to the perusal of the many presidential and other addresses which, during a period of fifteen or sixteen years, have appeared in the Australian *Gazettes*, "Journals" and "Transactions," and it is astonishing how narrow have been the gauges on which they all have run. They may be readily divided into three great classes, "the general, the special, and the local," and without referring to any of the earlier, and perhaps equally able efforts in similar classes, the three types are well exemplified by addresses, but recently delivered.

The "general" is well indicated by that masterful lecture of Dr. Scot-Skirving's at the last meeting of Congress. Dealing with medicine and its highly honourable traditions, which, if lived up to, make the physician's life lofty and dignified, his audience listened to one of the most delightful professional orations ever given to them; not only was the material intellectual and cultured, but the charm of the speaker, and the pawky way (pawky is the only word suitable) in which he drove home his thrusts, and his solemn way almost sublime. Lest ye forget! Lest ye forget!! are never likely to be forgotten by those who had the privilege of being spoken to.

Of the "special" address, and this class is numerically weaker, probably because original workers are few, one of the best examples is Dr. Marten's valuable paper on "The effects of migration from the northern to the southern hemisphere," delivered before the South Australian Branch of the British Medical Association on the 20th June last. I look upon this as one of the most valuable articles which Australia has ever contributed to medical science or literature; and while I may not agree with all this paper contains, for in certain respects my experience hardly tallies with that of its author, yet this is neither the time nor place to criticise it, but instead I strongly recommend you to read it carefully and give it your attention and consideration.

Of the "local" class, and this is a very numerous one, for presidents have very frequently chosen to descant on matters local and of interest to their own societies and branches, perhaps the most successful of the lot, and certainly the most attractive to us in Brisbane is Dr. Hardie's interesting history of "The Medical Society of Queensland from its birth in October, 1886, to its marriage with the Queensland Branch of the British Medical Association on the 3rd February, 1900."

The old society did excellent work in the past, as generously recognised and reported by Dr. Hardie, and that work will live, be acknowledged and appreciated and influence for good the happy union which the somewhat elder spinster made with her more youthful spouse. No more welcome event ever took place in the medical annals of Queensland than the union of the two societies, and, I am sure, every one in this room unites with me in wishing success, and strength, and power to the two who are now one; and I take this opportunity of thanking you for the distinguished honour you conferred upon me when you made me the first president of the union. Another class of address which I must refer to is unique, it is the "reminiscent," and was most successfully introduced by Dr. Taylor last year, and as imitation is described as being the sincerest flattery, I am sure my friend will pardon me for adopting his method this evening while telling you something about "the microscope in Edinburgh thirty to thirty-five years ago." There and then the faculty of medicine consisted of some thirteen chairs, as the professional appointments were termed, and in but two of these was the use of the microscope taught, and even then the attendance upon the tutorial class giving the necessary instruction was but optional, advisable perhaps from a purely examination point of view, but assuredly not compulsory. This indifference was not due to any defect in the instrument or to any want of knowledge on the part of the professor or teacher. Thirty-five years ago the microscope was a very perfect instrument—Powell and Lealand's stand—the stand, par excellence, of to-day had been adopted some ten years previously—and the resolution of some of the most difficult diatoms—diatoms, such as the amphipleura pellucida, which even now strain to the utmost the optical properties of the most modern lenses and which are to-day, the most difficult things to see and the yet most difficult to photograph—was accomplished—Carpenter on "The Microscope" had then reached a third edition (now the seventh) and Brales was quite a standard book.

1846-1867.—Even then, John Goodsir, the Professor of Anatomy was an accomplished observer, and so far back as 1842 had discovered and described Sarcina Ventriculi; but in the middle sixties he never thought of getting his students to use a microscope during any portion of their anatomical training.

Goodsir, was a great, gaunt man, and always suggested to me—I don't know why—Lord Ruthven at Rizzio's murder. He was a great anatomical enthusiast and once took up his abode in the belly of a huge whale—a veritable Jonah—and worked incessantly there until he satisfied himself of the problem at which he toiled. From this labour he became an ataxic and eventually died of spinal lesion.

Dr. Playfair, better known at first as Lyon Playfair, and subsequently as Lord Playfair, never showed a microscope either in his lecture hall or in his practical class room. In those days chemistry and the microscope were not needed.

And the Professor of Natural History—dear old George J. Allman—one of the most genial of men and of teachers—although he never ceased bemoaning the unfortunate limitations of the amœba—having neither mouth, nor vent, nor anus—never exhibited this friend of his which drew from him so much pity, for publicly, at least, he never employed a microscope.

But Woody Fibre! for at least a generation that name must have been familiar to hundreds of Edinburgh men scattered over the world. It was a name, I tell you, to fear; for the Dean of the Faculty was a power—the greatest power in the School.

1845-1879.—Woody Fibre, alias Professor John Hutton Balfour, of the Chair of Medicine and Botany, taught the use of the microscope. He favoured Field's Society of Arts instrument. It was cheap, costing about £3, and it was always obtainable, for the Society of Arts made some arrangement with Field, that for the use of the Society's name, he must always keep a sufficient number of instruments in stock. Well, we cut and mounted our sections, there was no staining—and many of mine are in good order to-day—although 35 years old—and they ought to be, for they won for me the only first prize ever obtained.

1840-1870.—I never saw a microscope on Christison's, Maclagan's or Simpson's tables; evidently neither materia medica nor medical jurisprudence required optical aid, and the introducer of chloroform, the great Sir James, could get along in his obstetric work without it.

Laycock, in his dual capacity, as Professor of the Principles of Medicine, and as one of the Clinical Professors, ignored the microscope in his teaching. I was with him some times, and I can vouch that no such instrument was to be found either in his lecture room or in his ward.

1842-1869—The most extraordinary of all, however, was the Professor of Pathology—Dr. Wm. Henderson—a handsome, dignified looking man; professionally. a capable man; and generally, an intellectual and scholarly man. He held no hospital appointment, he had nothing whatever to do with the post-mortem theatre, I never heard of his possessing either a laboratory or a museum, he never shewed anything in the way of a morbid or other specimen—macroscopic or microscopic—he despised diagrams and ignored the black-board; yet daily he lectured, solemnly and learnedly, on pathology. He was always respected; he never was nicknamed; yet I don't think the students ever took him seriously.

1848-1874—The real working microscopist of my time was Dr. John Hughes Bennett, Professor of the Institutes of Medicine, as physiology was then called. He had conducted classes on practical histology since 1841, but yet a quarter of a century later his methods were extremely crude if viewed by the technique of to-day. He favoured an "Obeahauser" microscope, costing six or seven pounds. and he utterly condemned all coarse and most fine adjustments, for with the sliding body tube, he insisted you "acquired that dexterous use of your fingers and accuracy of manipulation which are at all times so useful." There was no such thing as hardening, freezing, or embedding — no microtome — no staining—a Valentine's knife was shewn, but seldom used—teazing with needles, or crushing and squeezing between two glasses were the manipulative methods in vogue. That Bennett had a profound belief in the value of microscopic research, no one can doubt; but the reasons he assigns for the faith that was in him are too utterly puerile, as may be learned by referring to his introduction to "Clinical Medicine," 1862, our text-book, half-a-dozen years later. On the surgical side, the microscope had no existence; I held appointments there for twenty-four months and I dare assert I never saw the instrument employed.

1864.—James Spencer — dear old Dismal Jemmy—Professor of Surgery, was "a profound anatomist and a dexterous and painstaking operator." His enthusiasm, and the desire to obtain cases were said, in his early days, to have led him to prowl about scaffolds and other dangerous spots, in the hope of an accident, and although he was a religious man an elder in the Free Kirk, he gave it out, on more than one occasion, that his idea of heaven was a place where the blessed cut the damned for stone! He was a wonderful lithotomist. Well, he did not bother about the microscope; the histology of a new growth was less to him than its outward characteristics, and he adhered to the old terms while classifying tumours—simple and malignant—lectures, 1871.

1833-1869—James Syme, Professor of Clinical Surgery, was one of the two greatest British surgeons of the middle third of the nineteenth century. Ferguson, of London, was the other. A friend writing of Syme said, "He would not in 1892, have been considered anything very remarkable, but in the fifties we knew him as the originator of nearly every improvement in surgery." He is immortalised in Dr. John Brown's famous prose-poem, "Rab and his Friends." In his "Principles of Surgery," 1863, he says, "It is not impossible that the microscope may yet penetrate the obscurity which now renders its observations so uncertain. But in the meanwhile I believe that a surgeon will best discharge the duty which he owes to his patients by endeavouring to make himself independent of any such assistance, by careful study of the sensible characters. He adopted Abernethy's arrangement and nomenclature of tumours, and divided them into—1st Sarcomatous or solid; 2nd, Encysted, or composed of a cyst containing matters of variable consistence, and such terms as "Scrofulous sarcoma and carcinomatous sarcoma" were recognised.

Since those days the term sarcoma has ceased to be generic and now refers to an especial growth having fairly definite embryological and histological characteristics; and, as during the last few years I have collected types of different varieties, and have made some 28 photo-micro graphs of sections of these, I should like to show them to you, and in describing them I trust you will pardon me if some of my introductory or other remarks seem tutorial.

The authors consulted were:—Ballaner, C. A., 1896; Butlin, R. T, 1884; *Curtis, B. F., 1895; *Hall, H. A., 1894; Coburn, T. H, 1900; Mussan, H. M., 1900; Pepper, A. J., 1883; Shattock, S. G., 1896; Sutton, Bland, 1895; Woodhead, Sims; White, C. P., 1899; **American.

TUMOUR.

"Of its histology little remains uninvestigated and unknown, of its pathogenesis, though much may be surmised, nothing can be said to be known"—(Allbutt). Many and various have been the efforts to describe a tumour Definitions have included either too much or too little.

It is claimed by White, of Leeds, that the definition given by him in the *Journal of Pathology*, August, 1899, is founded on a morphological basis, involves no theory of origin; excludes hypertrophy, hyperplasia, inflammatory swellings and retention cysts; but includes all tumours, properly so-called.

Definition.—"A tumour is a mass of cells, tissues or organs, resembling those normally present in the organism, but arranged atypically, which grows at the expense of the organism, without at the same time subserving any useful function therein."

Faults in the embryological system of classification:—

I.—The developmental origin of some parts of the body is not as yet fully understood. The Wolffian duct, for example, generally supposed to be mesoblastic in origin, is now supposed by some to be epiblastic or hypoblastic.

II.—Epithelial tumours (papilloma, adenoma carcinoma), are always classed as epiblastic or hypoblastic in origin and yet in all text books, such tumours are described as occurring in mesoblastic organs, such as kidney, testes, ovary and uterus.

Also neuroma and glioma although of epiblastic origin are classed with mesoblastic tumours.

This system has also the objection that it separates malignant endothelial tumours from the carcinomata, although they sometimes cannot be distinguished histologically.—White, "Treatment of Pathology," Aug. 1899.

CLASSIFICATION OF TUMOURS.

If it is difficult to define a tumour, it is equally difficult to make a classification. The embryological basis is said to be defective on account of uncertain knowledge; the morphological basis is the one at present accepted.

The classification of Monod and Arthaud is of the former, and is based on the number of layers of the blastoderm concerned in the production of the different varieties. It is stated to be very complete, and it asserts that all sarcomatous growths are derived from the endothelium. (Ashhurst-Curtis, vol. vii.)

White's classification (1899), is founded on the same morphological basis as his definition: Organ, tissue, cell. He claims for it that it involves no theory of origin or etiology. It is rational and uniform, and corresponds with the clinical division into simple and malignant.

CLASSIFICATION THROWN ON SERUM.

Green (1900) says: "In the present state of our ignorance no satisfactory classification of tumours is possible," but he bases on their histological characters.

Woodhead ( ), gives three great classes.

1. Simple or Histoid—(*a*) connective tissue; (*b*), mesoblastic; (*c*), tissue of which the body is built up.
2. Sarcomatous Tumours—(*a*), imperfectly developed connective tissue; (*b*), mesoblastic; (*c*), attempt at higher development.
3. Cancerous Tumours.—(*a*), Epithelium; (*b*), hypoblastic or mesoblastic; (*c*), some or all tissue elements present in excessive or erratic form.

But it is with sarcomata we have to do!

SARCOMA.

A sarcoma may be defined to be a malignant tumour of connective tissue origin, with a preponderance of cells over the intercellular substance, which is insignificant in amount; but this stroma intervenes between all cells, and is as closely connected with them as in ordinary connective tissue.

Vascularity.—It is usually very vascular, and may be cavernous, erectile, or pulsating; but the distribution of the vessels is irregular; many of these have never any distinct coats; the walls of the capillaries are formed by the flattened and elongated cells of the growth, hence the ease with which portions of the tumour are carried into the blood stream, giving rise to secondary growths, chiefly in the lungs, but also elsewhere, and the ease with which ruptures and hæmorrhages occur.

Growth.—It is ubiquitous; it grows from any organ and springs wherever connective tissue is present.

Malignancy.—Some of the sarcomata are more malignant than others; the recurrence of some after surgical removal is both rapid and marked, with others the tendency to reappear is slight. The soft, small round celled variety and the nucleated larger spindle celled are highly malignant; so also are the alveolar, the lympho and the osteoid and those varieties attacking the subperiosteum, the tonsil and testicle and which, according to Butlin, affect lymphatics. Melanotic sarcoma of the skin is highly malignant. The myeloid growths are the least malignant and many of the spindle celled tumours, after removal never recur.

Metastasis.—This is of frequent occurrence through the medium of the blood vessels, rarely, if ever, through the lymphatics (although Butlin affirms it may) and secondary growths appear most frequently in the lungs.

Combinations.—These tumours are frequently associated with histoid growths, and the stroma may be mucous, fibrous, cartilaginous or bony; hence the compound names — fibro-sarcoma, etc.

Degenerations —These may be fatty, blood-cystic, mucoid, calcareous, osseous, or pigmentary, and the parts affected may give the cue to the changes.

Physical Conditions.—The sarcomata may originate in an irritation; they grow rapidly; they often become very large; as a rule they have ill-defined edges, and there are no lymphatics. While they most frequently appear in early or middle life, I cannot agree with the author who says "We always find them occurring before the 35th year," for I have met with them in both elderly and in aged men.

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A strange statement has been made that they never occur in scrofulous persons. I don't know how that may be.

Varieties.—These are based upon:—

1st.—The shape of the cell. I. Round celled—(*a*) small; (*b*) large. II. Spindle celled—(*a*) small; (*b*) large. III. Mixed celled, in which no one form predominates. IV. Myeloid, giant or mother cells.

2nd.—Modification of structure. I. Arrangement of cells—lympho-sarcoma. II. Disposition of the intercellular substance —alveolar-sarcoma. III. Admixture with other than embryonic tissue—fibro sarcoma; chondro-sarcoma; osteo-sarcoma.

3rd Some nutritive change. Secondary, melanotic-sarcoma; cystic-sarcoma.

GRANULATION SARCOMA.

The simplest form of sarcoma consists of an aggregation of round cells, which it is impossible from a mere microscopical examination to tell from inflammatory granulation tissue; hence it has been sometimes called granulation sarcoma.

Slides 3 and 4, Burn.—This granulation tissue is found in healthy wounds healing by open granulation, and consists of a mass of indifferent cells, cemented by a scanty amount of ground substance, and heaped up around festooned vascular loops, given off by the underlying vessels.

SMALL ROUND CELLED SARCOMA.

Primary Seat.—Most generalised tumour attacking mankind:—Skin, fascia, loose areolar subcutaneous tissue, muscle, bone, mamma, testes, nerve centres and even retina.

Secondary Seat.—Invariably lungs and vascular organs; does not affect lymphatic strictures.

Growth.—Rapid, soft, pulpy, not unlike encephaloid carcinoma hence called medullary or soft sarcoma—is usually rounded; infiltrates locally and is very malignant.

Microscopic.—Cells round, without cell walls, 1/2500 to 1/1600 inch.

Slides 5 and 6, thigh.—Nuclei large, deeply stained, vesicular, with nucleoli, proto-plasm, small amount.

Slides 7 and 8, Connective Tissue.—Intercellular substance, scanty, granular, homogeneous, or perhaps indistinguishable.

Slides 9 and 10, Testicles.—Blood vessels, channels with indifferentiated walls composed of modified sarcoma cells.

Slides 11 and 12, Dr. Crosbie's Case—Lymphatic absent.

LARGE ROUND-CELLED SARCOMA.

Some authorities do not recognise this as a sub-division of the round-celled variety of sarcoma.

Primary Seat.—Usually found involving the submucous tissues of the pharynx and posterior nares, where it appears as a small fibrous polypoid mass, sharply defined.

Growth.—Not so malignant as the small variety, and seldom gives rise to secondary growths.

Microscopic.—Cells larger than in other variety; Nuclei, 2, 3, or 4, large ovoid.

Slides 13 and 14 (pharynx imported). Protoplasm, fair quantity. Intercellular substance, delicate, fibrillated and occasionally collected into bands.

Blood vessels, embryonic.

SMALL SPINDLE CELLED SARCOMA.

Most authors include in this division the fibroplastic and recurrent-fibroid of Paget.

Primary Seat. — Subcutaneous and submucous connective tissue, fascia, periosteum, sheaths of vessels and nerves, etc.

Growth.— Unusually firm, frequently encapsuled, liable to infiltrate and renew after removal.

Microscopic Slides, 15 and 16.—Cells usually small, about $\frac{1}{1500}$ of an inch, oval, oat-shaped, spindle, branched, varying according to angle at which cut.

Sternum.—Nuclei: Oval, short oval, sometimes round. Protoplasm, faintly granular and varying in quantity. Intercellular substance, variable in amount and usually parallel to long axes of cells. Blood vessels fewer than in the round celled sarcoma.

LARGE SPINDLE-CELLED SARCOMA.

Primary Seat.—Similar to small variety, but more frequently on the skin.

Secondary Seat.—Liver, brain, pericardium, intestines, etc.

Growth.—Very rapid; never very large; somewhat softer in consistence than small spindle-celled variety; very malignant; blood cysts common.

Microscopic Cells.—Large and frequently plump.

Slides 17 and 18, Back of Hand.—Nuclei and nucleoli especially prominent, and frequently multiple.

Slides 19 and 20 (Dr. Hardie's Case), Shoulder. —Intercellular substance scanty.

MIXED CELLED SARCOMA.

This is composed of cells of various shapes, partly round and partly spindle, but in which no one type predominates which, on account of the irregularity of structure, it is impossible to include in one of the other classes.

Slides, 21 and 22—head of tibia.—My own experience is that when section cutting or searching for specimens of pronounced types, the majority of growths seem to be of the mixed cell character. This may be due to pressure, when round cells become flattened or elongated; or through the action of the knife, when a distinct fusiform appearance results from obliquity of section.

MYELOID OR GIANT-CELLED SARCOMA.

Primary Seat.—Grows in connection with bone; ends of long bones; medullary cavity of long bones; alveolar processes; epulis; egg-shell crackling.

Secondary Seat.—Is found in the lungs; but there are no giant cells; it resembles only small spindle-celled sarcoma.

Growth.—Is slow, tumour hard, firm, often encapsulated, sometimes vascular and pulsating, frequently cystic, rare after middle life, seldom gives rise to metastasis, and is the least malignant of all the sarcomata.

Microscopic.—Cells, as in small spindle-celled sarcoma, but somewhat irregular, and with more protoplasm.

Nuclei, oval or rounded.

Slides 23 and 24, lower 2nd of Femur.—Giant or myeloid cells, resembling the cells of the red marrow, and consisting of large irregular masses of protoplasm, consisting of 10, 20, 30, 40, or more nuclei.

Intercellular substance slight.

LYMPHO SARCOMA.

Primary Seat.—In lymphatic glands; in connective tissue everywhere; common in mediastinal growths.

Secondary Seat.—Lungs.

Growth.—Grows rapidly; is often multiple; gives metastasis, is a modification of the round-celled variety, in which the intercellular substance becomes reticulated, and the cells become enclosed in its meshes.

Gland.—It somewhat resembles the stricture of a lymphatic gland.

White says:—"That alveolar-sarcoma should be included among the carcinomata.—"Treatment of Pathology," Aug. 1899.

ALVEOLAR SARCOMA.

A somewhat rare form of round-celled sarcoma, seemingly an anatomical limb between sarcoma and carcinomata—Billroth.

Primary Seat.—Skin, bones, muscle.

Secondary Seat.—Internal organs.

Growth.—In the skin, often multiple and ulcerates, recurs locally, gives metastasis and is frequently very painful.

Microscopic.—Cells. Very large indeed, well-defined, round or oval, are arranged in groups and somewhat resemble epithelial cells, sometimes cell-masses are very large.

Slides 27 and 28, case of Dr. Hawkes.—Nuclei. Large, round, prominent, one two or more. Intercellular substance, may take form of fibrous stroma, forming small alveoli within which the cells are grouped, stroma penetrates between individual cells.

MELANOTIC SARCOMA.

Primary Seat.—Choroid, iris, skin, or where pigment is normally present.

Secondary Seat.—Every organ of the body; liver, spleen, kidney, heart, brain, cord; lymphatics and subcutaneous tissues.

Growth.—Soft, highly vascular, dark brown or blue colour; often multiple, being rapidly disseminated and found in distant tissues; most malignant, from giving metastasis by blood-vessels and also through lymphatics.

Microscopic Slides, 29 and 30—Skin—Cells: Spindle shaped, occasionally round, uncertain proportion pigmented, containing granules of a brownish or dark sepia colour, which is said not to be true melanin, nor derived from the blood pigment, but is eliminated by the larger cells of which the tumour is composed. The amount of pigmentation varies in different cases.

A PAPER ON IMPERATIVE ABDOMINAL SURGERY, AND THE AFTER-TREATMENT OF ABDOMINAL SECTIONS.

By C. P. B. Clubbe, M.R.C.S. Eng., Hon. Surgeon to the Prince Alfred Hospital, Hon. Surgeon to the Sydney Hospital for Sick Children, Joint Lecturer in Clinical Surgery, Sydney University.

Read before the University of Sydney Medical Society.

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Abdominal surgery is now such a vast subject that it is hardly possible to consider it as a whole in a paper of this nature. I propose, therefore, to-night to deal only with that kind of abdominal surgery which I think might be called "imperative abdominal surgery," *i.e.*, the surgery that you may one and all at some period of your lives be obliged to undertake at very short notice.

The tendency of the age is for nearly all young medical graduates to aspire to be operating surgeons. We even hear of men only qualified a few weeks contemplating such major operations as pylorectomy and hysterectomy. Far be it from me to discourage anybody. But you must remember that no one is born a surgeon. The science everybody can learn from the text books, but the art is generally acquired slowly like all other arts. In your early days then you should not be too eager to undertake the very large and difficult operations. It is highly probable that you will all before you are many years older have plenty of opportunities of letting off some of your surgical zeal by doing operations really "imperative," so you may well allow operations that are not urgent to go by until in the fulness of time you are competent to deal with them.

Imperative abdominal operations may be necessary for the following conditions:—

- Contusions of the abdominal wall.
- Penetrating wounds of the abdomen (stabs, bullets, etc.
- Traumatic perforation of the viscera.
- Perforation of stomach or intestines (by disease).
- Ruptured ectopic gestation.
- Intestinal obstruction:—
    - Hernia (various kinds).
    - Intussusception.
    - Volvulus.
    - Bands and adhesions.
    - Tumours causing acute obstruction.
    - Appendicitis.
    - Septic peritonitis (from whatever cause).

I can only deal with some of these conditions to-night, and then I will say something about the after treatment of abdominal sections.

The general symptoms of abdominal injuries may vary greatly; we often find the same symptoms under greatly varying conditions, because these symptoms are common to all cases where the peritoneum has been suddenly irritated. Thus a patient may be collapsed, in a cold sweat, with a feeble flickering pulse, shallow respirations, tender rigid abdomen, and a tendency to vomit, after a blow on the abdomen that has caused no actual injury to the abdominal contents; and almost the same symptoms may be met with after perforation of the stomach or intestines or a ruptured tubal pregnancy. Any blow on the abdomen may, if it affects the semi-lunar ganglion, produce a temporary collapse; this soon passes off if the viscera are not ruptured It is only by watching and carefully observing the progress of the symptoms that we are able to decide whether an operation is imperative. A sudden blow on the abdominal wall, perhaps a kick from a horse, without any external mark, may cause rupture of some part of the intestines.

In February, 1898, a youth, aged 18, came to the Prince Alfred Hospital with a history of having been kicked by a horse a little to the right of the umbilicus. The accident occurred two hours before he sought admission, and the patient was able to walk from the conveyance that brought him into the hall. He complained of severe abdominal pain. He was not distended, and there were no marks on his skin. He vomited twice, but there was no blood in the vomit; he had passed clear urine. His breathing was thoracic and painful. Abdominal muscles rigid. Liver dulness obliterated. Pulse full and bounding. When I opened the abdomen four hours afterwards I found a perforation in the upper part of the ileum, about a quarter of an inch in diameter, and two other places where the bowel was much bruised. The perforation was closed, and the injured parts of the intestine were sewn over with fine catgut. The man subsequently made an uninterrupted recovery.

A very curious and rare case of perforation of the intestine came under my care at the Prince Alfred Hospital in July, 1897. The patient was a man aged 50, and when admitted to the hospital he stated that five hours previously, while carrying a heavy weight on his back, he found a sudden pain in his abdomen. The pain prostrated him, and he had to leave off work at once and lie down. Three hours after this he began to vomit. When I saw him he was blue and almost pulseless. He was lying in bed with his legs drawn up, and his abdominal muscles were rigid. On opening the abdomen I found a small perforation high up in the jejunum. This was closed in the usual way, the abdomen was flushed out and the glass drain used. The patient improved during the operation, and made a speedy recovery.

Penetrating wounds of the abdomen may be caused by stabs, splinters of wood, or gunshot wounds. The danger and severity of these injuries necessarily depend upon the direction of the penetrating body and the damage done to the viscera. After such injuries it is nearly always advisable to operate. From the experiences lately gained in Cuba and the Transvaal it seems, however, that after the abdomen has been penetrated by bullets of small bore and high velocity it is not generally necessary to operate, and that these cases frequently recover without any bad symptoms.

When a patient with an injury to the abdomen first comes under the notice of the surgeon he must carefully observe the condition, especially the pulse and respirations, in order to ascertain whether hæmorrhage is going on. If the patient's pulse is failing and his respirations are becoming sighing and shallow, then it is clear that there must be no delay. Operations after such injuries may have to be undertaken under the most unfavourable circumstances, for it is not always safe to move such patients.

When about to operate in a case where the abdominal wall has been perforated, a probe may be gently introduced into the wound to see the direction, but it need not pass quite through the abdominal wall In opening the abdomen the wound must not be ripped up by putting a knife into the wound and cutting from below, but the incision must be made in the usual way through the skin and other structures of the abdominal wall, having, if possible, the original wound about the centre of the incision. Everything that bleeds must be clamped and tied off before opening the peritoneum. The opening in the abdomen must be at least four inches, and this may be enlarged to six, if necessary. All blood should be quickly mopped out of the abdomen. If the bleeding is still going on we must endeavour to find the bleeding spot as quickly as possible. If it is not come upon readily we need not hesitate to turn out the intestines. Bleeding points when found must be tied or sewn over. If the viscera have been perforated there will probably be free gas in the peritoneum, which will be noticed when it is first opened. If the wound is in the large bowel the gas will have a fæcal odour, but if the gas is odourless we may expect to find the wound in the stomach or jejunum. Wounds of the viscera may be quickly closed by means of catgut sutures. The intestines, if they have been taken out, may now be washed with boracic lotion. If there has been much bleeding, or if the peritoneum has been soiled, it is well to flush out the abdominal cavity with hot water, for so doing seems to improve the condition of the patient at the time, and if properly done it removes much material that may give rise to subsequent trouble. A gauze drain, surrounded with gutta percha tissue, should be introduced, and the abdomen closed with stitches through the *whole* of the abdominal wall.

Perforation of the stomach due to gastric ulcers are not at all uncommon. They generally occur in anæmic girls who have suffered from dyspepsia. The symptoms are a sudden very intense pain in the epigastrium, followed almost immediately by collapse, which may be extreme. Sometimes there is slight vomiting. The first severe collapse often passes away to a great extent in the course of a few hours. When seen by the doctor the patient looks very anxious, complains of pain in the upper part of the abdomen. Her breathing is thoracic. When examined the abdomen will be found tender all over, especially at the upper part, slightly distended, tympanitic, and the liver dulness may be obliterated. You must not be misled by the statement of the patient and friends that she is now very much better than she was a few hours ago when first seized with the sudden pain. If you can make up your mind from the history and the general appearance and condition of the patient that she is suffering from a perforated stomach, delay is dangerous, and the sooner the operation is undertaken the better. Morphia, grain ¼, should at once be injected.

The incision must be made from the ensiform cartilage nearly to the umbilicus. When the abdomen is open, the anterior surface of the stomach can be inspected if the sides of the wound are retracted. If the perforation is on the anterior wall it will easily be found; but if nothing can be seen on the anterior wall the stomach should be drawn down and turned over, and an opening may have to be made in the great omentum for the posterior wall to be properly explored. If the opening is the result of an ulcer the parts in the neighbourhood of the perforation will be found hard and stiff from exudation, and it may be very difficult to invert the edges. For this reason, and also because the tissues around the openings are very rotten and will not readily hold sutures, the opening may be drawn together by inserting a few sutures through the whole thickness of the stomach wall and then placing a row of Lembert's sutures in the peritoneum. The abdominal cavity should be merely wiped out with soft sponges and not flushed or washed with hot water. The abdominal wall must be closed, leaving a gauze drain at the upper part of the wound leading down to the damaged stomach wall. Some surgeons recommend the excision of the whole ulcer by an oval incision. The healthy stomach wall can then be easily brought together. This procedure has obvious advantages, but it must add to the shock of the operation.

Perforation of the intestines may occur during an attack of typhoid. It usually occurs in the last two feet of the ileum, but it may occur in the large intestine or the appendix. Perforation is usually single, but there may be more than one. There does not seem to be any relation between perforation and the severity of the attack. The symptoms may be very marked, on the other hand they may be so slight as to escape notice. The peritonitis that follows is usually general, but may be localised. The symptoms are severe abdominal pain coming on suddenly. Very frequently nausea, vomiting, and collapse. In doubtful cases an examination of the blood should be made, because in these cases of perforation there is always a great increase in the white corpuscles, while in ordinary cases of typhoid there is no leucocytosis. If the condition is diagnosed early enough the abdomen should be opened. The cæcum should be sought for first and the ileum followed up for a few feet. If there is a perforation it will be readily discovered by the flakes of lymph that are always to be found in close proximity to the perforation—Nature's effort to repair the damage. When the perforation, which is often a very minute hole in some part of a thickened Peyer's patch, is found, it must be sewn over, the whole patch must be included. As there is frequently more than one perforation in these cases it is as well to hunt a little further after finding one. Before the abdomen is closed it is as well to wash the coils of intestine with warm boracic lotion. Opinions are still divided as to whether the intestines should be just gently wiped with the sponges or whether the whole abdominal cavity should be flushed out with hot water. If there is much collapse I think, after wiping away the flakes of lymph that can be seen and readily got at, it does no harm to flush out with hot water, and it may help to pick the patient up. Of the recorded cases operated on for this condition so far 25 per cent. have recovered.

It is frequently necessary to open the abdomen to give relief in various forms of intestinal obstruction. In very desperate cases, when it is evident that the patient will not stand any prolonged operation, a very small opening may be made in the abdominal wall, a distended coil of intestine seized and sutured carefully to the peritoneum. An opening is now made into the bowel, and an india rubber tube introduced. A large quantity of gas and fæces soon escape, and the patient gets relief. This often tides over a difficulty, and later on, when the patient's condition improves, if it is necessary, the abdomen can be opened.

It is very often quite impossible to diagnose the cause of the obstruction. The diagnosis is made as the operation proceeds. You know that you have acute intestinal obstruction to deal with—what the exact cause of that obstruction may be it may not be possible for you or any one else to say. You may surmise this and you may surmise that, but often you cannot know till you have your hand inside the abdomen.

The only form of intestinal obstruction that I propose to speak about to-night is that variety known as intussusception. In this form of obstruction the condition has nearly always been made out before the operation is undertaken.

Intussusception, invagination, or telescoping of the intestines is fairly common, and it is a condition that you are all certain to meet with several times during your professional career. It is essentially a disease of childhood, although it may occur at any age. It is perhaps most frequently met with in babies from three months to one year old.

I will not here go into the etiology of this condition, nor will I describe the various forms of intussusception, all of which information you will find in your text books

I will, however, give you a few hints which may be of service to you in enabling you to recognise this condition and help you to treat it. In a typical case of intussusception you will nearly always get this story from the mother: "The baby was quite well, when suddenly, apparently without any cause, it began to scream; it became pale and vomited, and after an hour or so she noticed that it passed blood and mucus from the bowel." This is the usual history. The screaming may go on for some time, perhaps for an hour, or it may only last a few minutes; the paleness may soon pass over; the vomiting may not persist. These symptoms are common in babies, and do not cause the mother much alarm; but when she sees the blood in the motion she becomes frightened and hurries off to the doctor. Now, if the medical man happens to be a very much overworked lodge doctor, who is harassed and worried to death day by day by people who come to him for the most trivial ailments (because they have nothing to pay) are you surprised that he sometimes overlooks the seriousness of this condition, and when the woman tells him that the baby has been passing a little blood and slime from the bowel, hastily concludes that the child has dysentery, and prescribes accordingly. The child at this stage perhaps does not look ill, and in these cases there is frequently a history of some looseness of the bowels for a day or two before the attack. Intussusception often comes on during irregular peristalsis.

Now I would advise you if you would wish to avoid mistakes when such cases are brought to you, however tired and hurried you may be, to ask a few questions. Find out if the passing of this blood and slime was preceded by an attack of screaming, paleness, and vomiting. If you get any such history it behoves you to be careful and to make an examination of the baby before you prescribe and send it away

Have the child undressed, lay it on its back, and examine the abdomen carefully with your fingers and see if you can come across the "sausage-shaped" tumour. If the child is crying and its abdominal muscles are tense give it a little chloroform, and if there is any tumour there you will soon make it out.

The general condition of the child will be apt to mislead you. It may not look at all ill. It may be lying quite still, or it may be playing with its toys in the interval between the griping pains which attack it. Its pulse may be hardly quickened, and its temperature may be normal, and yet, in spite of all these negative symptoms, you may find on examination that it is suffering from an intussusception.

An intussusception may be present, and all the usual symptoms may be absent. There may be no history of screaming, faintness and vomiting, but simply the passing of blood and slime. It is possible to have an intussusception without any passing of blood by the bowel; the child may be only uneasy, somewhat distended, vomiting perhaps occasionally, and have passed several normal motions. In such cases the conditions may be easily overlooked.

If the intussusception is acute after 24 hours there will nearly always be symptoms of intestinal obstruction. In the early stages you must not expect very often to feel the mass with your finger in the rectum. It only comes down to that extent in the early stage in a small proportion of cases. Occasionally the intussusception comes right through the anus, it has frequently been mistaken for a prolapsed rectum. A careful examination will always prevent your making this mistake.

Now, having made up your mind that you have to deal with an intussusception, how are you to proceed? In most cases, in dealing with the children of poor people, these cases are, for obvious reasons, usually sent into hospital. But you may be so situated that it is impossible for you to get rid of your responsibilities. I may say here that there never need be any tremendous hurry to operate on these cases, I mean a delay of three or four hours is of no great consequence

How to Treat These Cases.—If you decide to treat the case, make all preparations for the operation. Then when you are ready, get the child under chloroform, and always try to reduce the invagination by means of rectal injections. Much has been written on this subject, and many surgeons are opposed to this method of treatment. Personally, I always use injections before operating. I think I may speak with some authority upon this matter. My reasons are these: In a certain number of cases the injection reduces the intussusception completely, and the case is cured. It always reduces the intussusception to a great extent, and in the best and gentlest way, and lessens the manipulations, and therefore the shock of the coming operation. Let us suppose the sausage-shaped mass to be in the descending colon; after a judicious use of the injection you will very likely find the mass greatly reduced in size in the region of the cæcum. If you had operated without first injecting you would have had to make a very large incision in the middle line, and would probably have had all the abdominal contents prolapse before you were able to complete the tedious manipulations necessary to squeeze the intussusception along the descending, transverse, and ascending colon to the cæcum, where it nearly always starts. On the other hand, after such an intussusception has been partially reduced by an injection of oil, you may very likely be able, after opening the abdomen to the right of the rectus muscle, to complete the reduction without allowing the intestines to escape.

One word of warning about injections. Do not be too cocksure that you have reduced the intussusception by this means. The tumour may have disappeared, and even with the most careful palpation you may fail to find a trace of it; but, although no tumour can be felt, the intussusception may not be thoroughly reduced. A good rule to follow is this:—In recent cases if the tumour has entirely disappeared, after an injection, given under anæsthetic, do not open the abdomen. Stand by, wait for a few hours, and watch the case. If there be no return of the symptoms, that is, no vomiting or screaming, and at the end of four or six hours no return of the tumour, you may congratulate yourself that you have effected a cure. The blood and slime may continue to pass for a few hours after complete reduction, and therefore you need not be alarmed if you see motions of this character; but you will be better pleased when fæculent matter is mixed with the blood. At the end of six hours then, after the injection you must always make another examination, very possibly under an anæsthetic. If there is no return of the tumour, and no untoward symptoms, you may consider the case at an end. If, on the other hand, the tumour has returned, you must delay no further. Operate.—In cases of intussusception lasting for more than one day, you can hardly expect to completely reduce intussusception by injection, and in these cases it is nearly always safer to open the abdomen after using the injection.—I always inject warm olive oil, warm water would probably do as well. When the child is under the anæsthetic its legs are held up in the air by an assistant. The injection is then given by means of an ordinary Higginson's enema syringe. After the nozzle has been introduced into the rectum, the fingers of the one hand must be used to compress the structures around the anus, to prevent a too ready return of the fluid, while the injection is going on. The quantity varies according to the age of the child, a baby three months old would take about 10 oz. The surgeon himself makes the injection in order that he may see that too much force is not applied. When it is clear that no more fluid can safely be injected let the child resume a horizontal position, and the oil will quickly return.

The Operation.—When once you have decided to operate you have to make your mind up as to the best place to open the abdomen. In the majority of cases an incision is made a little to the right or the left of the middle line, the umbilicus being the centre of the incision. All bleeding should be stopped before opening the peritoneum. The peritoneum in babies is very thin, and if the intestines are distended and closely applied to it, great care must be taken lest they are wounded. In cases of great distension, when once the abdomen is opened the small intestines will come tumbling out. Let them come You will do a great deal more harm than good by trying vainly to retain them. Your object is to get through with the operation as quickly as possible, and get the child back to its bed again. When the intestines have stopped coming out, feel for the tumour and gently deliver it from the abdominal cavity. Examine it carefully, and when you have found out which is the lower part gently begin squeezing, using the fingers of both hands. Do not attempt to pull it out. Just at the very last, before (what is nearly always) the cæcum unfolds itself, if you think you have put as much pressure on the intussuscipiens as it will bear, you may ask an assistant to apply very gentle traction on the bowel just above the place that it enters the sheath. Then, still squeezing and with very gentle traction, the bowel gradually unfolds itself. The last portion nearly always will feel very hard, and if it is the cæcum you may see a concavity just above the position of the appendix; before you return the bowel to the abdominal cavity you must see that this concavity becomes and remains a convexity, otherwise there is a great risk of the intussusception recurring. If the intestines are outside the abdomen wash them with warm normal saline solution or sterilized water and return as quickly as possible. To get them in you must well hook up the abdominal walls by inserting one fingor on each side into the abdomen. The intestines returned, close the abdomen at once in the usual way. It is well to give these babies $\frac{1}{40}$ gr. of morphia and 1 drop liq. strychninæ, just before the operation. Always have the child, when possible, lying on an indiarubber hot water bag during the operation. The shock of these operations is necessarily very great, and frequently the child never rallies from the shock, especially in cases where the intussusception has lasted for some time and where there has been much difficulty in effecting the reduction.

Time will not permit me to deal with abdominal section for perityphlitis as an imperative operation. It is a subject of the greatest importance, and cannot be dealt with in a few lines. The question of operation in these cases very frequently gives us a great amount of anxious thought, and there are no class of cases that are at times more worrying. A man in large practice said to me only the other day, "A few years ago I thought I knew all about appendicitis, but now I confess I know next to nothing." Many men would say the same thing. if they were candid. The more one sees of these cases, the more apparent does it become that they may be as difficult and anxious as any that surgeons have to deal with.

THE AFTER TREATMENT OF ABDOMINAL SECTION.

In the after treatment of these cases we must, as in many other conditions, if we wish to be successful, use a little of what is called common-sense.

The young house-surgeon when he is left for the first time in charge of a case of abdominal section is sometimes very much at a loss. He may turn to his text books, but can find small comfort there. The surgeon may have given him a few hurried directions, taking it for granted that he knows the rest, but very often he does not.

Abdominal sections vary very greatly in the effect produced upon the patient. A "clean section" for the removal of an appendix without adhesions, or a simple straightforward ovariotomy cannot be compared in point of gravity with a resection of some part of the intestine, or a difficult oöphorectomy.

In one class of case there may be hardly any shock to deal with, and in the other the patients may be only just alive to leave the table.

All cases where the operation has been undertaken for peritonitis, let the cause be whatever it may, are necessarily more grave than those in which the peritoneum was healthy at the time of the operation. These cases we must remember may be less able to bear the shock of the operation, because their vitality may have been lowered by the absorption of toxines. They are in a different postion to those who have had one or more attack, perhaps, of a localised peritonitis, from time to time. For these people stand abdominal operations well, because they are in a measure immune; they seem to have developed some sort of peritonitis antitoxine.

I will now say something about Shock, Pain, Vomiting, Position, Feeding, Distension, Getting the Bowels to Act, Management of Drainage Tubes, and Drains, Removal of Stitches.

If there is much shock—Brandy 1 oz., hot water 3 ozs., may be injected into the bowel directly the patient is placed in bed. Then hot water bags should be placed at the feet and on each side of the patient. Strychnine, which has probably been administered during the operation, may, if the pulse does not seem to pick up, be repeated. If there has been much loss of blood, a saline may be given subcutaneously, the quantity varying with the condition of the patient.

Be careful that the hot water bags are not too hot. You must remember that your patient is insensible and helpless, and may be severely scalded without knowing it. In private practice, on other grounds, too, you must be especially careful on this point, because you are supposed to be responsible for the nurse if you have recommended her, and should she, through carelessness, burn your patient, you will be made to suffer by having something taken off your account when you send in your bill.

Pain.—After nearly all Abdominal Sections, I like my patients to have one dose of morphia, gr. $\frac{1}{8}$ or $\frac{1}{4}$. Many surgeons are opposed to it being given, because it may stop secretion, check peristalsis, and produce vomiting. It does not usually have these dire effects, and I think the good it does in easing pain, producing sleep, and giving a general sense of comfort, counterbalances any possible harm. In babies after intussusception, I always give a gr. $\frac{1}{40}$ of morphia directly after the operation, and this often has to be repeated if the child is not resting.

Vomiting.—This follows all long operations, and may be due to shock as well as the chloroform. It generally passes off in 24 hours. During this period it is as well only to give sips of hot water. If the patient has violent fits of retching and only brings up a small quantity of bile, stained fluid, a good drink of warm water may be given to them, which washes out the stomach as they soon return it. If the vomiting persists, they must be fed by nutrient enemata, three or four ounces every four hours. The enemata should always be peptonised, as the rectum has little power of digesting any food After operations on the stomach, if there is vomiting, it is a good plan to prop the patient well up in bed, but this cannot be done if there is much shock.

Feeding.—For some hours after the operation little or nothing is given by the mouth beyond two or three teaspoonsful of hot water every hour. After 12 hours if the vomiting has stopped, small quantities of Benger's Food, liquid peptinoids, soda water, or Valentine's meat juice may be given. The small quantity of fluid given during the first 24 hours tends no doubt to promote absorption by the peritoneum. After the third day, if all be going well, these patients may take ordinary light diet.

In babies the food cannot be withheld from them for anything like this length of time They must be fed after the first few hours. Mellin's food and whey, one teaspoonful to two ounces. White of egg and water, to which some somatose has been added, may be tried in small quantities every hour. After two days, if the child is at the breast, the mother may feed it.

Position.—It is usual to keep patients strictly lying on their backs for some days after an abdominal section. It seems to me that there is no necessity for this rule (with very few exceptions), which often adds enormously to their discomfort.

If there is any distension they should first be turned on one side, then on the other. This movement tends to help the bowel to pass along the flatus, and turpentine enemata may be given. Quinine enemata (gr. 15) are often very useful in relieving distension.

No house-surgeon feels quite happy until he gets the bowels to act. In straightforward, clean sections, where there are no untoward symptoms, there is no necessity for the bowels to act for three or four days after the operation. In these cases you must remember that the patient has been properly prepared. The bowels have been made to act freely by a purgative, and they have also been washed out very thoroughly by an injection. Very little food has been given. The food that has been taken for the first two or three days after the operation is very small, so that the intestines must, or ought to be empty. In these cases, then, why can't we leave the poor bowels alone? The over-zealous house-surgeon, if there is no action in eighteen hours, orders 5 grains; or if he is extra energetic 10 grains of calomel, to the great discomfort of the patient. In these simple cases the bowels should be left to take care of themselves. At the end of three or four days, if there is no action, a simple enema of hot water may be given.

What I have just said does not apply to all cases. Some cases of imperative abdominal section, for instance. In such cases the patients have. probably not been prepared, or only partially, and their bowels may be loaded. Then in all cases of septic peritonitis it is important to keep up peristalsis, and the watery evacuations, no doubt, tend to lessen the engorgement of the inflamed intestines. In such cases, then, by all means get the bowels open at the earliest possible date, and keep them open.

The subject of drain or no drain is too complicated a matter to enter into here. The tendency nowadays is, as far as possible, to do without any drain. But there are cases when a drain is essential. A drain is always an evil, and should be left out as soon as possible. When a drain, a glass tube, a wick drain, or simple gauze, ceases to act, it should be removed. In removing gauze drains, care must be taken not to pull out any omentum or coil of intestine. The best way to remove a gauze drain is to twist it, and keep twisting it all the time it is coming out.

Removal of Stitches.—When the abdominal cavity is sewn up in layers, as it very often is now, there are no sutures to be removed, which is a comfort to everybody. But in many cases, for various reasons, the ordinary silkworm gut sutures which pass right through all the structures of the abdominal wall have still to be used. These sutures, for some reason or other, are very often a source of annoyance to the house-surgeon. Why, it is difficult to understand. He is always itching to remove them, and sometimes, about the fifth day, he is quite unable to restrain himself, and out they come. The abdomen is then strapped. Why these sutures offend house surgeons I have never been able to understand. If these sutures are not causing any trouble, there is no reason why they should not be left in for 14 days. Indeed, in babies and young children it is quite dangerous to remove them before this time In some children, if they are doing no harm (and I am allowed to have my own way), I leave them in for three weeks. I have experienced many catastrophes from the too early removal of sutures. It is a most serious and lamentable thing after a patient has got over a severe abdominal section, and is on the high road to recovery, to have his life jeopardised by the bursting open of the abdominal wound and the prolapse of several coils of intestine into the bed. And this is what comes of too early removal of sutures. If one or more sutures seem to be giving trouble by all means remove them, but never take them all out until you are sure that firm union has taken place.

To conclude. Under certain conditions, in one set of cases, perhaps, the after treatment may consist of practically doing nothing—leaving well alone. In another set of cases the most active treatment may have to be carried out from the first, and all your resources may be taxed to the utmost in your endeavour to keep your patient alive.

In all cases, and this does not apply to abdominal sections only, you must remember to treat the patient as well as the disease.

When the time comes that you are left alone and have to act entirely on your own responsibility, in dealing with the class of cases we have been discussing this evening, what all of you will most need, is experience. But experience cannot be bought, neither can it be taught. It can only be acquired slowly, and stored up by each one of us for future use.

We must, however, be careful to use our opportunities for gaining it aright. Someone has said that, "Experience to most men is like the stern lights of a ship, which illumine only the track it has passed."

Although none of you can gain experience all at once, if you are in earnest, it will come to all of you later on, and, in the fulness of time you will profit by the work that is now going on. So each generation helps the coming one.

You remember the words of "Waldo's Stranger": "By the steps that I have cut, they will climb. By the stairs that I have built they will mount. . . . And no one liveth to himself, and no one dieth to himself."

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ROENTGEN RAYS.

BY L. HERSCHEL HARRIS, M.B., CH.M., MEMBER OF THE ROENTGEN SOCIETY OF ENGLAND, HON. SKIAGRAPHER, ALSO TEMPORARY ASSISTANT SURGEON SYDNEY HOSPITAL.

(Continued from Page 19a, A. M. Gazette, January 25th, 1901.)

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FOCUS TUBE DERMATITIS.

Soon after the Roentgen Rays came into general use, as everyone knows, cases of resulting injury to the skin began to be reported. This effect was usually spoken of as "X" Ray dermatitis, but in a paper on the subject read by Dr. David Walsh before the Dermatological Society of Great Britain and Ireland in July, 1897, he ventured to suggest the use of the non-committal name of "focus tube dermatitis."

By either term is meant an inflammation of the skin following one or more exposures to a focus tube in action. The damage may be fleeting; nothing more than a slight reddening of the skin, with sudden onset and rapid disappearance, or the hairs of the affected part may fall out painlessly. On the other hand, it may be severe, coming on from a few days to three weeks after the exposure; the epidermis may peel off or the underlying tissues may slough away, and leave an obstinate ulcer that takes months to heal.

The existence of cause and effect in this condition has been established both by the large number of recorded cases, and by certain experimental observations

There is nothing specific about the inflammation of the skin—nothing in its appearance that would proclaim it as due to the focus tube. It is a symptom of a remote exciting cause, and exactly resembles the dermatitis set up by a number of irritants, such as exposure to a hot sun, to a furnace, or to the action of a caustic alkali.

The problem to solve is the nature of the irritant peculiar to the focus tube. In a very able paper by Dr. David Walsh on the subject, he puts forth the proposition that the injurious effects of the focus tube are inversely proportional to the distance of the tube from skin, and the length or frequency of exposure.

The analogy, he writes, is not a little striking between focus tube dermatitis and that produced in rare instances by exposure to a hot sun or to the heat of a furnace. With regard to the exciting cause in all three conditions, we observe—

1. That the dermatitis may arise from a single exposure.
2. That injury is excluded by clothing.
3. That chemical rays exist in each.
4. That deep as well as surface tissues may be affected.

From such considerations and facts, Dr. Walsh suggested a year ago, that the focus tube dermatitis may prove to be due to "chemical rays"—common with those which exist in the rays of the sun and of the electric arc light, capable of stimulating the human cutaneous surface and sometimes the deeper tissues of the body, in varying degrees of severity, which are in some way determined by personal predisposing peculiarities. (The Roentgen rays in Medical work, p. 116.)

This hypothesis was shortly afterwards confirmed in Austria, when Schiff showed a patient who had been treated with the focus tube rays for lupus, and attributed the favourable result to the chemical action of the rays.

He quoted Finsen of Copenhagen, who recorded equal success with chemical rays not produced by Röentgen apparatus.

This statement was confirmed by Spieght, who said he had worked personally under Finsen with the treatment. The sun's rays were usually utilised for this purpose, and were passed through lenses to decompose the light before it was allowed to reach the morbid structures. At a later stage of the experimental treatment, an electric arc light was used.

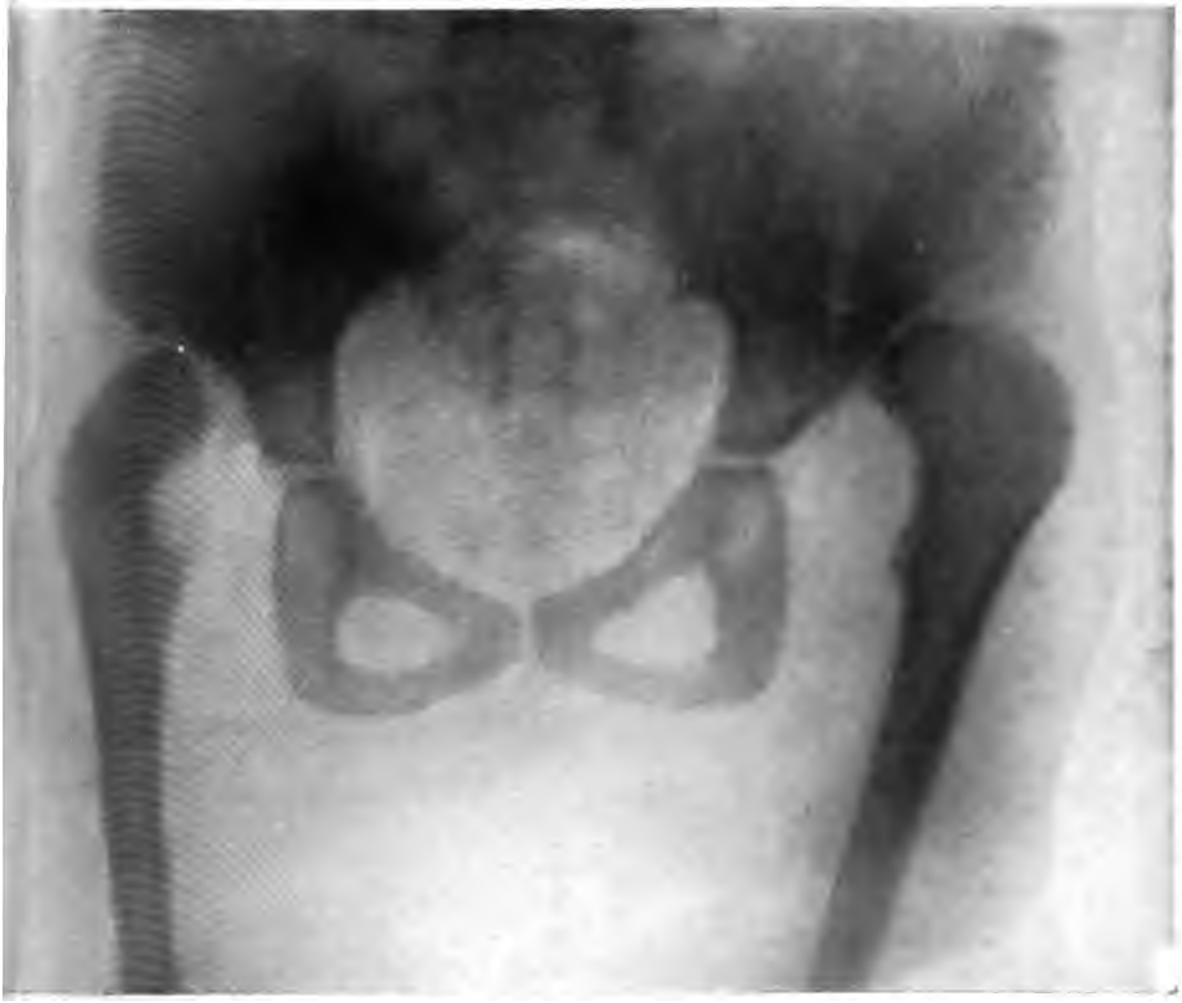
Little glass plates were laid over the illuminated surface to produce a sort of anæmia, or the acting ray would have checked the circulating blood

To sum up a very exhaustive paper on the subject, Dr. Walsh concludes that—

1. A dematitis, of varying severity, with a tendency to destroy hairs, deep layers of the epidermis and subcutaneous tissues, may be set up by exposure to a live focus tube.
2. That the damage usually follows either a number of short exposures or a single long exposure with tube close to the skin.
3. That while the injury, as a rule, affects susceptible persons, it may, nevertheless, be produced in insusceptible individuals under certain conditions.
4. That the inflammation is probably due in some way to chemical rays generated in the focus tube, or to electrical conditions produced in the skin or to a combination of those two agencies, and not to the "X" rays themselves.

You are all aware that in several cases actions have been taken for injuries caused by exposure to the focus tube, and in some cases

Illustrating Dr. Harris's Paper on Roentgen Rays.



Double Congenital Dislocation of Hip-Joint.

Under care of Dr. Clubbe, Children's Hospital.

damages have been awarded. On this account it is always well to warn the patient beforehand. So far as my own experience is concerned, out of about six hundred cases I only know of one in which a dermatitis is said to have been caused.

I regret I did not see this case afterwards, and I believe it was very mild.

In several cases I have produced a dermatitis purposely for the treatment of certain skin diseases, etc.

It may be mentioned that last year a subcommittee was formed to investigate the subject of "'X' Ray Dermatitis," consisting of the President of the Roentgen Society and several other very prominent members, and the result of this investigation is awaited with great interest.

VISIBILITY OF THE "X" RAYS.

In a paper published in the *Medical Review of Reviews* in March, 1899, it has been computed that one person in every eight hundred is blind to the "X" Rays; that is to say, when looking through the fluoroscope they are utterly unable to observe the bones of the body, coins, or any other object which is clearly distinguishable by the ordinary observer.

"X" RAYS AND THE RETINA.

It has been confirmed by such great authorities as Roentgen, Horn, and Brandes that the "X" Rays can excite a sensation of light in the retina of the normal eye This is probably due to a fluorescence produced in the retina.

THE EFFECTS PRODUCED IN CULTURES OF MICRO-ORGANISMS AND OF TUBERCLE-BACILLI BY EXPOSURE TO THE INFLUENCE OF AN "X" RAY TUBE.

In the August number of the *Archives of the Roentgen Rays*, just to hand, appears a paper on the above subject, written by R. Norris Wolfenden, M.D. Cantab., and W. E. Forbes-Ross, M.D. Edin.

They first quote three sets of experiments which thay have made, which support the view that the action of the "X" Ray tube is strongly stimulative to vegetable life.

1. Cress seed exposed to an "X" Ray tube for an hour and then sown in a box, and grown side by side with a box of cress not "X" Rayed, is found to start germination much sooner than the non "X" Rayed seed, and to show a vigorous growth before the latter has commenced. This experiment has been repeated several times, and the results are fully in accord with the statements of Malding and Thouvenin that "X" Rays hasten the germination of seeds.

2. If two flasks of Pasteur's fluid are prepared, one of which is sown with yeast "X" Rayed for an hour, and the other with yeast not "X" Rayed, germination begins sooner, and is much more vigorous, in the "X" Rayed sample than in the other.

3. A sample of pure milk, "X" Rayed for an hour, quickly shows a greater degree of acidification (*i.e*, activity of Bacillus lactis) than a corresponding sample not "X" Rayed.

If exposure to an "X" Ray tube in all these instances should quicken and stimulate the biological conditions, why should it have an opposite effect upon micro-organisms grown in tube or Petri dish cultures? There might be differences in the behaviour of individual organisms, but it is not likely that the general rule of increased activity, exhibited by half a dozen distinct species, should not apply to all or the majority.

The authors found that this stimulating effect on the cultures was exhausted after several generations, but that after resting for some time these cultures became active again, and subcultures grew with undiminished vigour, the original bacilli having apparently quite recuperated by rest.

The method employed for carrying out the experiments was as follows:—The culture tube was laid upon glass and invariably covered with black paper. The focus tube was 6–12 in. above culture tube, and the latter was exposed for one hour at a time, immediately removed to the incubator, and grown in absolute darkness.

BACILLUS PRODIGIOSUS.

This bacillus grows well to the twelfth generation on potato or agar, and the new growth is from the first pink-pigmented.

•Growth through several generations appears to weaken its power, both of growth and of forming pigment; but these properties are recovered after allowing the last generation to rest and recuperate.

Control tubes set at the same time show how great is the growth of the "X" Rayed organisms, and the microscopic appearances show that they have undergone important and marked changes, and that their morphological characters and mode of growth are distinctly abnormal showing how great is the change produced in the bacilli by their treatment.

The new bacilli grow in chains, with iridescent spots resembling spores, and many bacilli are dumb-bell shaped. They are three to four times larger than normal.

They have similarly treated micrococcus aurantiacus, and bacillis fluorescens non-liquefaciens with corresponding results.

Microscopically, they are seen to be larger than normal, and are disposed to sort themselves into bundles of four, resembling micrococcus tetraganus, and to show amongst the new-grown cocci, some of enormous proportions, true giant cocci.

In a like manner they have treated staphylococcus pyogenes citreus, staphylococcus aureus, staphylococcus cercus flavus, and staphylococcus pyogenes albus, the common organisms of pus and suppurative processes, all of which, with the exception of staphylococcus pyogenes albus, form pigmented cultures.

The staphylococcus pyogenes citreus particularly revels in the stimulus of the "X" Ray, and from the very first takes on a very exuberant growth.

This stimulus lasts through several generations for subcultures taken from "X" Rayed tubes, which have been put away and cultivated without further exposure to the "X" Rays, show the same energy of development as their "X" Rayed parents.

The staphylococci are seen to be much larger than normal, and are disposed to group into fours, the pigmentation is of a rich yellow They have remarked in staphylococcus cercus flavus the same increased activity of growth as the result of exposure to the "X" Ray tube, and in staphylococcus aureus the same phenomena up to the seventh generation, in which the growth is quite remarkable even after fourteen hours of exposure.

Staphylococcus pyogenes albus shows the same relatively increased activity, but is a slower-growing organism normally than the others.

All these staphylococci show the same exuberance of growth in "X" Rayed cultures, and, microscopically, all the "X" Rayed cultures show cocci which are larger than normal, and group in fours.

The authors have also treated bacillus coli communis in Petri dish cultures, and have observed the same stimulation of growth up to the third generation.

The result of their two years work, they summarize, as follows :—

1. It is impossible by any ordinary long exposure to high vacuum bulbs, to kill growths of baccilli or cocci by "X" Rays.

2. Such an effect would be directly contrary to the effect of "X" Ray stimulation of seeds, as mentioned.

3. These effects upon low vegetable organisms are also produced in cultures of bacilli, the vegetable properties of which are stimulated to excessive growth, while they are profoundly altered in their biological and physiological characters.

4. An apparent death in cultures so treated is only exhaustion of vitality from excessive proliferation, since only rest is required to enable the organisms to again take on active growth.

These effects observed in non-pathogenic cultures, have been repeated in cultures of tubercle of which may be distinguished a fast-growing strain and a slow-growing strain.

Both strains of tubercle exhibit the same characters microscopically, and in the phenomena of their growth they are, like all other organisms, stimulated to excessive proliferation.

The bacilli are short, fat, glassy, homogeneous rods, which resemble colon bacilli or anthrax, rather than tubercle, stain quite evenly, and show no sign of "dotting."

Amongst these abnormal bacilli are to be found bacilli with all the characters of normal tubercle bacilli.

The further changes which these bacilli undergo on being allowed to grow and mature are of the highest bacteriological interest, and the authors intend going into this subject more fully in another paper.

They appear to form spores or pseudo-spores.

They conclude their paper by saying that "There is not the smallest doubt that "X" Ray stimulation does not kill tubercle bacilli, but stimulates them to excessive growth, and only affects them adversely by attenuation from overgrowth"

"X" RAYS AND SKIN DISEASES.

For several years now the "X" Rays have been employed in the treatment of many skin affections on account of their known therapeutical value.

So far, most astounding results have been obtained in the treatment of Lupus vulgaris, and Professor Schiff, of Vienna, claims to be the first to have treated and cured this affection with the "X" Rays.

In the *British Medical Journal* of May 5th of this year appears an interesting article by Professor Schiff, where he describes his cases treated and also the method.

Hundreds of other cases of skin affections have been recorded in the various journals similarly treated, and the results are so gratifying as to make us at last hope that a cure has been found for most chronic skin affections.

The method employed is simple, and can be briefly described:—

The part to be acted upon by the Rays is left exposed, and the rest of the body in the vicinity is protected by cardboard covered with thin lead foil.

The tube is so disposed that the cathode is distant about 5 in. from the part. Exposures are made once or twice daily, and the sittings last from five minutes, gradually increasing to twenty minutes.

Schiff advises the following precautions, viz.:—To avoid

(*a*) A too great strength of the primary current (1½ amperes with 12 volt tension should never be exceeded).

(*b*) A too high tension on the pole screws of the secondary coil of the transformer.

(*c*) Too long and too frequent irradiations.

(*d*) The too short a distance of the vacuum tube from the skin.

The first case tried was that of a girl suffering from lupus vulgaris, who for many years had been treated medically, surgically, and with Koch's lymph in vain. This patient, after a few months exposure to the "X" Rays, was exhibited before the Vienna Dermatological Society as cured.

Professor Schiff maintains that "The influence of the 'X' Rays on the skin consists first in a relaxing effect on the deep vessels of the corium an effect with which is certainly associated a slight exudation into the tissues of the epidermis and cutis.

"This process causes a swelling of the hair papilla on hairy parts of the body, and consequently also the detachment of the hair bulbs.

"In cutaneous affections, with inflammatory infiltration and new growth of young tissue, the cellular formative elements get altered in their molecular composition, and thus prepared for absorption.

"Whether the 'X' Rays operate injuriously on the micro-organisms, or whether it is only that phagocytosis, becoming more pronounced under the inflammation, proves serviceable in parasitic affections of the skin, has not yet been determined. As indications calling for treatment with Roentgen Rays are to be enumerated: Abnormal growth of hair and all cutaneous diseases caused, or rather prolonged, by the presence of hair, as sycosis, favus wounds of the hairy parts of the bods, and trichorrhexis nodosa; and as furunculosis, acne. lupus vulgaris, lupus erythematosus; eczema and elephantiasis."

When the face is being treated, it sometimes happens that conjunctivitis is set up. This is prevented by making the patient close the eyes and covering them with a shield as described. Should it occur, the usual astringent collyria prove effective. Against erythema and pruritus Schiff found that 15 per cent. boracic lanolin was an excellent remedy.

In the same number of the *British Medical Journal* appears a paper by Robert Ernest Schofield, M.A., M.B. Oxon., describing a very successful case of lupus vulgaris cured by the "X" Rays.

In the *Archives of the Roentgen Ray* of May, 1899, appears a paper by C. Thurston Holland, M.D., Hon. Med. Officer in charge of "X" Ray Department, Royal Southern Hospital, Liverpool.

He describes and illustrates the successful treatment of two very indolent cases of lupus vulgaris.

The first involved the foot, and was of eleven years standing, and the second case involved the face and was of five years duration. Both were completely cured after a course of treatment. In the first place during treatment, the nails of the toes fell out, though they soon grew again, and in the second case, some of the hair of the scalp fell out, but this too rapidly grew.

At a meeting of the Medical Society of Hamburg, held on July 19th, 1898, Dr. Hahn described two cases of chronic eczema which had been successfully treated with "X" Rays.

In the *Medical Press* of May 27th, 1899, appears an extract from a paper by Schiff, who in conjunction with Freimd, had treated several cases of sycosis and favus.

In both diseases, when the rays were applied 7 and 13 times respectively, complete recovery was obtained, leaving the skin free from all inflammatory contractions and smooth.

Herpes tonsorans was equally amenable to the rays.

In another contribution by Schiff and Freund, they mentioned that 17 to 30 short exposures to the "X" Rays, lasting for about ten minutes each would generally remove superfluous hair. In some cases the skin assumed a brown colour before depilation commenced; in other cases, especially with brunettes the hair became white before falling out.

Early this year, Dr. Albers presented at the meeting of the Hamburg Medical Association a number of patients with lupus, chronic eczema, favus, and psoriasis cured or in various stages of treatment, with the rays, one case of lupus cured for a year, and another in which an incipient recurrence was promptly aborted.

In one case of chronic impetiginous eczema of the head in a child of 11 months, the hair returned normally in a few months after the cure of the eczema.

A very lengthy and able paper has been contributed to the subject by Dr. Margaret Sharpe, which appears in the *Archives* of February of this year. She mentions numerous cases treated with very excellent results and records, an interesting observation made during the treatment of one of her cases. An old scar on the temple of one of her patients was exposed to the rays, and it improved in appearance to a remarkable degree. It became more vascular, the skin softer and moister, and was altogether much less noticeable.

So that we already have ample evidence to convince us of the immense therapeutical value of the "X" Rays in many skin diseases.

THE ROENTGEN RAYS IN DISEASES OF THE CHEST.

At the Congress on Tuberculosis held in Paris in 1898, Bouchard and Claude (Paris) presented a long report on the application of the Roentgen Rays to the diagnosis of pulmonary tuberculosis.

They proved that at the outset of this disease where congestion is present and tubercular formation is proceeding, that by the use of the fluorescent screen, at one or both apices will be seen small spots, ill defined at their circumference, or sometimes just a slight mistiness will be perceptible veiling one apex.

In other cases, a kind of strippling of small shadows on a less dark ground appears. The intensity of the shadows always is proportional to the defect in the penetration of air into the lung.

If the lesion formed a compact voluminous mass absolutely impenetrable by the air, the darkness shown on the screen is complete. If a number of little nodules be present, separated by parts still permeable by the air, the general opacity is less intense, and on the dark ground are to be seen deeper shadows corresponding to points completely caseated.

The formation of cavities can be revealed either as an absolute opacity or exhibiting zones of relative transparency surrounded by spots of variable opacity. Absolute opacity is met with in cases of cavities filled with pus, and when deeply situated and surrounded by pulmonary tissue stuffed with tubercles, or when a covering of dense adhesions prevents the passage of the light rays.

If, on the other hand, the cavity be superficial, empty, and with a thin wall, it shows as a clear zone when compared with the neighbouring parts of the lung more deeply shaded; oval in shape, and sometimes the ribs in front were visible.

When the cavity fills up, the clearness disappears, and only a large shadow remains. The pneumonic confluent form of acute phthisis reveals itself on the screen by complete opacity of the diseased parts, because at these points the lung is no longer permeable to air.

Effusion at the base is shown by a thick shadow hiding the diaphragm, and below is lost in the obscurity of the abdominal mass, and above is limited by a zone of penumbra directed obliquely from above down from the axillary region to the vertebral column, or in the shape of a curve concave at the upper border.

Frequent examinations will show the variations in the extent in the liquid effusion by variations in the extent and form of the shadow.

Dense and extensive adhesions of the pleura manifest themselves by shadows constant in form.

Pneumothorax can be identified by an abnormal transparency on one side of the chest, displacement of the heart and diaphragm.

In conclusion, it is stated that the use of the "X" Rays makes it possible in certain cases to discover, commencing changes in the lungs at a period when other methods of clinical investigation give no indication.

In other cases, it defines the extent or reveals the importance of a lesion insufficiently disclosed by auscultation or percussion.

Again, it enables the practitioner to reject the hypothesis of tuberculosis in cases where symptoms and clinical signs of doubtful import puzzle the clinician; while at the same time, it often enables him to trace to their true cause general disturbances, which clinical observation has failed to detect.

Beclère (Paris) has made a communication on the same subject, and lays great stress on the importance of early radioscopic examination.

Kelsch made radioscopic examinations on 124 men admitted to hospital in October and November, 1897, for various medical and surgical affections, all cases in which pulmonary tuberculosis could be recognised by the ordinary diagnostic methods being carefully excluded.

The results were absolutely negative in seventy-three of the cases, but in the remaining fifty-one, the fluorescent screen revealed abnormalities of various kinds—lessened transparency of the apices, enlargement of the bronchial glands, more or less marked opacity of the pleura, diminished movement of the diaphragm.

These appearances were considered by Kelsch to be characteristic of tuberculosis.

He adds that the screen, by allowing, as it were, a pathological examination of the lung to be made during life, confirms the conclusion to which he has been led by *post-mortem* examinations, namely, that in young persons, latent tuberculosis exists in at least two or three of every five cases.

Dr. Hugh Walsham on being asked by the Roentgen Society to read them a paper, selected as his subject "The Roentgen Rays in Diseases of the Chest." A full report of this appears in *Archives* of May of this year, with illustrations showing tubercular deposits in all stages, cases of pneumothorax, fibroid phthisis and several cases of aneurisms.

At the conclusion of his paper, he says, "I cannot, I think, do better than end with the words of a member of this Society, Dr. Crane of the United States, who says: 'Simple inspection, palpation, percussion and auscultation open to the examiner a range of signs which the "X" Rays cannot equal. But such is the supremacy of the eye, and such the importance of things seen, that even after a careful physical examination the skiascopic image comes as a revelation.'" These words, Dr. Walsham thoroughly endorsed.

At the Sydney Hospital, I have examined a few cases of tuberculosis with the screen, and also photographed one case. The tubercular patches were in all cases clearly seen.

In the February number of the *Archives* of this year, is a very long paper also profusely illustrated, by M. Bergonié, Professor of Medical Physics at the University of Bordeaux and M. Carriére, Assoc.; of Faculty of Medicine and Director of Clin. Lab. of University of Lille.

They make important deductions, viz.:—

(a) That pleural effusions do not allow the Roentgen Rays to pass through them.

(b) That the opacity is directly proportional to the amount of effusion.

(c) When there is a collection of pus in the pleura, the opacity, seems less complete than when there is an effusion of serum.

Also above, the boundary is generally very clear and sharp, and presents variable appearances.

1. It may coincide with the curve of Damoisseau.
2. It may be concave above (the opposite to that curve).
3. It may be horizontal.

In all their researches, the state of the pulmonary parenchyma above the effusion was examined, and the following conclusions drawn.

When the thorax above the effusion is uniformly transparent, the prognosis is good; there is no fear of pulmonary tuberculosis. It is quite a different matter, however, when opacities of more or less irregular shape, which do not disappear with deep inspiration, are found above the liquid. Then it is a question of bacillary infiltration and our prognosis must be guarded.

THE PRACTICAL APPLICATION OF "X" RAYS TO DENTAL CASES.

In the *British Journal of Dental Science*, May 15th of this year, appear two papers on this subject, one by William S. Haughton, B.A., M.B., B.Ch., and the other by George J. Goldie, L.R.C.P.S. Edin., L.D.S. Edin., both of which were read before the Odontological Society of Great Britain.

Amongt the preliminary obstacles which had to be overcome were the following:—

1. To obtain a photographic film which would accommodate itself to the varying curvature of the alveolar arch.
2. To enclose this film in an envelope impervious to ordinary light.
3. To protect this film in its light-proof envelope from the moisture of the saliva.
4. To obtain materials for these envelopes which would be permeable to "X" Rays, while impermeable to light and moisture.
5. Having satisfied the above conditions, to study accurately the best anatomical position in which to place the film so as to catch the "X" Ray shadow of that particular part of the tooth under immediate examination—to arrive at which requires a careful study of the formation and anatomical relations of each individual tooth.
6. To obtain a clamp which would hold the film as rigidly as possible in the best anatomical position obtainable.
7. To maintain the patient's head at absolute rest.
8. To ascertain the best position and working distance of the "X" Ray tube with regard to the photographic film.
9. Duration of exposure.
10. Photographic difficulties of technique, such as special development for those films.
11. Last, and by no means least, to acquire a large experience of dental "X" Ray negatives, absolutely essential in this as in all other parts of skiagraphy, for correct interpretation.

The most striking cases dealt with during four years' practice, and which yielded good results, were:—

1. Fracture of the jaw.
2. Fracture and dislocation of tooth in the jaw.

3. The diagnosis of inflammation round the roots of teeth—alveolar abscess—circumscribed and diffuse.
4. The diagnosis of inflammation giving rise to symptoms remote from the seat of lesion, as neuralgia, etc.
5. The diagnosis cf impacted and incoming wisdom teeth.
6. The normal eruption of the permanent teeth.
7. Abnormal eruption of the same.
8. The absence or presence of any given tooth in the body of the jaw when its eruption has been abnormally delayed.
9. The progress of regulation of teeth.
10. Exostosis.
11. Many purely clinical uses of "X" Rays.
12. Foreign bodies in the Antrum of Highmore.

Very many other cases have been recorded in which the "X" Rays have proved of the utmost value, and there is no doubt that the dental science opens a large field for such investigation, the results of which must prove of very great value both in diagnosis and treatment.

GENERAL APPLICATIONS OF THE RAYS.

In conclusion, I think I cannot do better than quote some extracts from an admirable book on the subject of practical radiography by Isenthal and Snowden Ward.

"Although the extent and importance of the surgical and medical applications of the Roentgen Rays have so far completely overshadowed their other possibilities, yet the latter are fairly numerous, and some of them have already passed into everyday industrial routine.

"The 'X' Rays are frequently employed by the veterinary surgeon, and, notwithstanding the many difficulties to be overcome, such as the restlessness of the animal, etc., very good results have been obtained. For prolonged exposure on animals, anæsthesia must often be resorted to The most frequent examination, so far, is that of the extremities of horses, with a view of detecting the causes of lameness, of spavin, and the presence of foreign objects in the hoofs.

"The applicatiou of the rays in the military and naval services may be twofold, namely, in the ordinary hospital routine and on the field. In the latter case, the use of the screen alone is feasible to deal with the most urgent cases, and to decide whether it is possible to remove the wounded to the base hospital. It is during the hours of actual engagement, and those immediately succeeding, that the certainty of the new diagnosis is of such immense help to the surgical staff, permitting them without slow, painful, and perhaps incomplete aseptic probing to ascertain, and perhaps rectify the presence of shots, splinters, fractures, etc., and thus do away with a great deal of suffering and unnecessary or faulty amputation and bone-setting with their fatal consequences, which, of course, with the former methods of diagnosis were inseparable from the stress and circumstances under which the first aid to the wounded is necessarily given. Such cases which absolutely require to be radiographically dealt with, have to be disposed of at the base hospital.

"The success and absolute scientific exactness of the new diagnosis led almost immediately to its introduction as legal evidence. The law demands, as a rule, that there should be an anatomical basis or evidence to substantiate the case for the plaintiff in cases of alleged injuries; and in countries where the extensive liability of the employer in cases of accident is legally accepted, or in claims upon accident assurance companies, the production of a suitable skiagram considerably simplifies and clears the proceedings. It also greatly tends to prevent simulation, and consequently must in time discourage perjury. Moreover, since the *modus operandi* of radiography does not cause physical pain or injury, or in any way clash with the dictates of morality, the plaintiff cannot judicially refuse to submit to the examination.

"Some other medico-legal cases in which radiography may eventually be of the greatest value can only be enumerated here. They refer to the decision as to pregnancy in doubtful cases, the determination of the age by means of the stage of ossification of the epiphysis in half-charred bodies perished in the flames, and the identification of bodies by looking for radiographical evidence of known former injuries, such as shots and fractures.

"Turning next to the industrial possibilities, the selective penetration of the rays for the detection of various enclosed objects was naturally the first peculiarity to be practically exploited. The postal authorities introduced the radioscope to detect illicit enclosures of coins and articles of value in letters and parcels. The French customs at the present time employ the same means in the examination of passengers' luggage; but, since many contraband articles, such as lace, tobacco, etc., are quite transparent to the rays, the value of the new system of examination is not very apparent, besides the risk of damaging by these means. Photographic preparations, which may be contained in such luggage, will in all probability cause the discontinuance of the practice.

"The contents of letters or documents written with specially prepared inks made from opaque metallic solutions can be radiographed

"The authenticity of old paintings which have become darkened by age may be established in certain cases, by taking a radiogram which brings out the monogram of the master. Such a case has been reported, in which a valuable oil painting by Albrecht Duree was identified.

"Similarly, in the case of many valuable antiquities and curios, certain problems may be cleared up For instance, the amount of bone ash, which is radiographically opaque, in a given piece of crockery, may allow us to classify the object as old china or ordinary porcelain.

"Another often-reported case is that in which a valuable mummy, about which professional opinion was divided, was subjected to the rays without removing any of the bandages, when the contents were recognised as the remains of the Ibis.

"Mr. Heycock, of Cambridge University, has applied the rays to the examination of different metals, and his results have been curious and valuable.

"By radiographic means, the presence of flaws and hollows in castings would afford an absolutely certain means of detecting such disqualifying defects.

"To the mineralogist and geologist much valuable information may be conveyed by radiographically sifting various ores as to their opacity. It is by now well known that true gems, such as diamonds, jets, etc., show considerable transparency to the 'X' Rays, whilst their imitations, consisting generally of lead, glass, and other glass coloured with metallic oxides, are more or less opaque.

"Samples of coal and of rubber have been subjected to the rays and interesting points discovered.

"Professor Goldstein and Dr. Wolfenden have radiographically examined various zoological and botanical specimens with brilliant results.

"Renvez employed the rays to detect adulterations in food stuffs, such as the admixture of sulphate of barium with saffron, etc.

"Bussard and Condon, of the National Agronomic Laboratory of France, by studying the radioscopic density of potatoes, concluded that the increasing opacity near the skin pointed to the prevalence of fecula in these parts, which was confirmed by chemical analysis. So that we see the 'X' Rays may be employed for many purposes.

"One great problem, namely, the isolation of the various radiations emitted from the tubes, which we are at present using, requires to be solved before we can effectively and with certainty deal with the many industrial and also medical possibilities.

"At present, the heterogenous nature of the Rays necessarily obscures and modifies some of the effects, and explains the practical impossibility to repeat the exact conditions of any radiographic experiment. We say that a certain result, therapeutic or other. is produced by the 'X' Rays, yet we are by now quite aware that really only one particular set of rays are effective, and that the other rays are not inactive, but partly blur the phenomenon under observation. A great deal should, we think, be eventually accomplished, both by screening the radiation by interposed media, and also electrically and magnetically."

I cannot conclude this long paper without mentioning the names of certain gentlemen to whom both the Sydney Hospital and myself are greatly indebted.

In the first place must be mentioned the name of Dr. Quaife, who most generously donated the "X" Ray apparatus to the Sydney Hospital.

And next I wish to place on record my deep gratitude to Dr. Clendinnen, of Melbourne, for through him I first acquired the taste for the subject, and at all times has he been most courteous in showing me his apparatus and imparting to me many valuable hints on the subject.

REFERENCES.

Lancet, May 27th, 1899. "The Roentgen Rays in Medical Work," Walsh. "Practical Radiography," Isenthal and Snowden Ward. "Electro-Medical Instruments and their Management," Schall. *Medical Review of Reviews*, March, 1899. *British Medical Journal*, 5th May, 1900. Paper by Prof. Schiff on "Lupus and Roentgen Rays." *British Journal of Dental Science*, May 15th, 1900. *Archives of the Roentgen Ray*, Vols. I., II., III., IV. and V. *Archives of Skiagraphy*, *Scientific American*.

Country Practice for Sale.—Practice, receipts £700 cash, hospital town, healthy climate. Address: H. H. W., *Australasian Medical Gazette*, 121 Bathurst Street, Sydney.

Dr. W. Carter Watson, of Richmond, N.S.W., has vacancies for a few convalescent patients. Address: Walton Cottage, Richmond, N.S.W.

Mrs. E. H. ROBISON née McEWEN, late of Prince Alfred Hospital Sydney, and Matron, Mudgee Hospital, announces to the Medical Faculty, that she (having lately returned from Dr. Otto Walther's Sanatorium for Consumptive persons at Nordrach, Black Forest, Germany) has established a Sanatorium upon similar lines at Leura, Blue Mountains, New South Wales. Terms on application.
"Lynton," Leura.

NOTES ON A CASE OF AMPUTATION OF HAND FOR RECURRENT EPITHELIOMA ON DORSAL ASPECT.

By JOHN M. McDONAGH, B.A., M.D., M.R.C.P., F.R.C S.I., SYDNEY.

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W. B., *æt.* 56, miner, noticed a small ulcer appearing on the back of his left hand six months previously to consulting me. He used some herbal remedies for a time, but the ulceration increased. When first seen there was a characteristic epithelioma, situated over the first metacarpal bone. Excision of the growth and subjacent bone recommended, but patient would not consent to the latter procedure; in fact, he was adverse to any operative interference, electing to try local remedies. Two months afterwards he again consulted me, and consented to have the growth removed, which was done, and the wound healed kindly. In three months' time there was a recurrence in the cicatrix, and I operated on it a second time, good union again supervening. Four months later he again sought advice, the growth being more extensive than on either of the former occasions. He then placed himself unreservedly in my hands, and I recommended amputation of the hand above the wrist, as affording the best prospect of recovery. This was done, and careful examination revealed no glandular involvement in either arm or axilla. His constitutional condition improved, and I anticipated no further trouble supervening. However, three months subsequently he again sought advice for a painful swelling in his left axilla. It appeared a month previously for the first time. Removal of glands recommended, and all the axillary glands were excised, good union following the operation. He enjoyed good health for about three months, when the subclavicular and cervical glands became involved, and extreme emaciation was present. His condition was so bad that no further operation was decided on, and he died from exhaustion some time afterwards. Microscopically the growth was an epithelioma. Had the patient consented to removal of the subjacent metacarpal bones in the first instance he would have had a better chance of recovery, as nothing short of free excision in sound tissue affords a good prospect of cure in malignant tumours.

"Retention of a Two Months' Ovum in Utero for Nine Months." A case of medico-legal importance. By Dr. Ralph Worrall, which appeared in *Australasian Medical Gazette*, September 20, 1900, is referred to at length in the *New York Medical Journal*, December 15, 1900.

CONCERNING ADENOIDS.

By RICHARD ARTHUR, M.A.. M.D. EDIN., SYDNEY.

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IN these latter days, when the general practitioner has annexed not only the pharynx, but its hinterland, the naso-pharynx, it may seem a work of supererogation to offer an article on a subject so well-worn as that of adenoids. My excuse must be that there possibly exist medical men who, like myself, heard little or nothing about the subject in their student days, and who have remained in the state of ignorance concerning it in which I found myself some years ago.

It is true that Meyer first made known his researches in 1868, but even twenty years later not much mention was made of the subject. Thus in the 1884 edition of Ericsen the condition is not even mentioned, and Goodhart, in his "Diseases of Children, 1891," while admitting reluctantly that the condition is more frequently met with than he had allowed in his previous edition, affirms that an operation is seldom necessary. It is interesting to note that nearly all the consequences which to-day are ascribed to adenoids are put down by him as due to hypertrophied tonsils.

But this want of appreciation of the significance of adenoids was not confined to the general physician and surgeon. Twelve years ago, after graduation, I attended a three months' course at the Clinic of a well-known ear and throat specialist. As far as my memory serves me we examined the ear and larynx much, the nose seldom, the naso-pharynx—if I remember rightly—never. On only one occasion that I am aware of did the question of adenoids crop up, and this was with regard to a patient, a small boy, whom I brought to the department myself, because his parents complained that they got no sleep from his snoring. The eminent specialist proceeded to insert his finger in the patient's mouth; the small boy closed his jaws lustily; the specialist withdrew his finger with haste and some exclamatory vehemence; and the small boy was shot out of the room. Thus was lost my chance of being acquainted with the nature and treatment of adenoids.

In support of this I may say that this same specialist's "Diseases of the Ear," 1884 edition, which was used as a text-book, only mentions adenoids once in a most cursory manner, so that it is evident that the causal connection between this condition and ear-disease had not then been recognised.

Of course we have changed all that now. To-day a child gets its naso-pharynx scraped out on the slightest provocation, and yet, so common is the condition, and so injurious in many directions its results, that the operation is indicated in a much larger number of cases than are actually treated.

It is chiefly with the various effects of adenoids that I wish to deal in this article.

The results arising from the presence of adenoids may be classed as due to—

I. Mechanical causes
II. Infective causes.

Sometimes these two causes are combined in bringing about an abnormal condition.

I. The first class of cases include all those in which the results brought about are due to the mechanical blocking of the air passages by the adenoid growths. It is needless to go into detail with regard to these results. It will be sufficient to name them with special emphasis on a few points.

(*a*) Interference with the hearing power. The presence of adenoids is undoubtedly the chief cause of the common forms of middle ear deafness both in children and adults. This may seem a sweeping statement, but its truth becomes more and more confirmed every day.

(*b*) Interference with the proper performance of respiration. From this result maldevelopment, not only of the chest but of the whole body. As one observer points out, the mouth-breather is usually found shallow through the upper part of the chest, and with very small lung capacity. Sufficient air is not inhaled, and therefore the blood is not properly oxigenised, and is surcharged with $C\,O._2$ This excess of $C.O._2$ causes the lassitude, headache, stupidity, and sleepiness commonly met with in mouth-breathers, and gradually renders the nerves of special sense less active and responsive to stimuli. The excess of $C\,O._2$ and lack of O. is the cause of the loss of appetite, malnutrition and general cachexia so often found accompanying mouth breathing. Examination of the blood also shows that there is generally a deficiency of red corpuscles, a condition which rapidly improves after operation.

(*c*) Various reflex effects, such as laryngismus stridulus, asthma, incontinence of urine, night-terrors, etc., are supposed to be caused by adenoids. At least, these conditions often disappear after the growths are removed.

(*d*) Physiognomical changes. I would specially draw attention to these, as they are of considerable importance from the æsthetic point of view, and the text-books do not give the subject the prominence it merits.

The ideal human face, as far as European art is concerned, has remained pretty constant for more than 2000 years. The first essential is that it be of the perpendicular type, *i.e.*, a line dropped from the forehead will pass through the chin. A chin lying behind that line is fatal to the highest form of beauty. Then the nose must be straight or aquiline, with delicately shaped nostrils looking downwards, the upper lip short and curved, with the concavity of the curve backwards. The mouth should close firmly, the chin project, and be well-rounded. This is the Greek ideal, but Lavater, in dealing with the faces of modern times, though permitting modifications, makes similar demands for the requirements of beauty. The Anglo-Saxon, especially when crossed with the Celt, is far from this standard, though if Hogarth is any guide, we have improved vastly on our ancestors.

But if physical beauty is an end to be desired, we can undoubtedly do something to promote it by the prompt and efficient treatment of adenoids in the young. For the continued presence of a mass of adenoid tissue in the naso-pharynx leads to quite definite structural changes The natural nose-breathing being replaced by mouth breathing, the features which are plastic in the young, respond in time to the change. The nostrils become pinched, and their orifices, which in children look more forward than downward, get permanently fixed in that position, giving an unpleasant appearance to the face. In some cases, too, a chronic eczema about the nostrils, due to a purulent nasal discharge, causes thickening of the tissues, and the loss of the graceful curves of the nostril.

The alterations in the mouth are no less striking. An almost invariable accompaniment of chronic nasal obstruction in the young is heightening and narrowing of the palatine arch. The exact *modus operandi* of this change is not yet settled, but the fact is indisputable. The effect of the narrowing of the arch is to push forward the jaw, causing in some cases "buck teeth" and making the upper lip project forwards. There is also a real or apparent thickening of the upper lip.

On the other hand, the narrowing of the arch makes the malar ridge prominent, and thus gives rise to high cheek-bones.

Again, the open mouth causes the lower jaw to drop. There seems to be some correlation between the closure of the lips and the jaws. This is a fact I have not seen mentioned, but anyone can prove the truth of it by clenching the jaws and then trying to breathe through the mouth, or *vice versa*, with the mouth closed and the jaws apart.

The open mouth and dropped jaw not only give a stupid look to the face, but the chin seems to alter in form. Of course, this appearance may be partly due to the chin moving downwards and backwards, but I think it also arises from a flattening of the bone and a non-development of the prominence of the chin, caused by the want of tone in the muscles attached to it. Add to this a look of stupidity, which is the outward sign of the mental dulness and impairment of hearing that generally accompany pronounced cases of adenoids, and we obtain a *tout ensemble* that is altogether to be deplored. I believe that there are some types of face less predisposed to this abnormal moulding than others. Some children inherit strongly-marked and positive features, and these seem able to resist to a greater or less degree the insidious advances of nasal obstruction. It is with the less definite and more mobile faces—which after all form the great majority—that the presence of nasal obstruction works disaster. Perhaps the most important factor in determining these facial changes is the length of time during which the obstruction prevails. If the obstruction is recognised and removed early the features will tend to return to their normal development, butif the condition persists for years the structural changes will necessarily become fixed, and the restoration of the nasal breathing cannot be expected to effect anything in this way.

This æsthetic consideration alone, apart from the injurious results to health, demands the prompt removal of adenoids. If beauty is the gift of the gods, it does not lie with mortals to command it. It is true, I believe, that there is an institution at Chicago with a surgical staff where the human countenance is taken in hand and reformed to order. But, though we cannot work such miracles here, we can at least see that the young are not robbed of what promise of good looks they may have by the presence of adenoids, and by a timely interference prevent such promise from vanishing.

II.—Results due to Infective Causes:—

At present there is a great deal being written about the effects of oral sepsis, but it would appear that it is equally necessary to emphasise the results of naso-pharyngeal sepsis. The structure of adenoid tissue fits it peculiarly for micro-organisms to lurk in and await opportunities for doing harm.

As one writer (Pomeroy, *Boston Medical Journal*, Jan. 1900) points out, "The pharyngeal post-nasal chamber is a distributing point for infection to the middle ear, brain, lungs, stomach and intestine." The part which has to bear the brunt of this infective invasion is undoubtedly the middle ear. It is certain that practically all suppurative conditions in the tympanum are due to the entrance of micro-organisms by the Eustachian tube. In the normal naso-pharynx, with its comparatively smooth walls, absence of catarrhal conditions and isolated Eustachian cushions, the soil is unfavourable for the growths of infective germs, and even if present the chance of their gaining entrance into the Eustachian tubes is not great.

On the other hand, the hypertrophied adenoid growth forms an ideal breeding ground for micro-organisms, and bacteriological examination has proved that they are constantly present in the tissue removed by operation. Among others are the streptococcus, the staphylococcus, and the tubercle bacillus. Various authorities have stated that from 12 to 20 per cent. of adenoids are tuberculous—a fact of the utmost importance. Again, clinical observation shows that nearly all children with a purulent discharge from the ear have adenoids. In fact, it should be an invariable rule in all cases of chronic otorrhœa to at once examine the naso-pharynx. I have seen cases where treatment of the ear was of no avail until the adenoids were removed, and then the discharge stopped almost immediately. The etiology in middle ear suppuration seems to me to be this: There is a mass of adenoid tissues in the naso-pharynx in which either micro-organisms are actually present, or which at least offers a favourable ground for their lodgment and development. To this being superadded a catarrh or the local congestion caused by one of the exanthemata, the infective germs have the conditions provided which can allow them to advance from their base, and middle ear suppuration is the result.

Though some observers believe that attacks of the exanthemata cause adenoid hypertrophy, Lennox Brown points out that this statement of cause and effect is often invented, and that in many cases it is the presence of adenoids which increases the severity of the specific fevers.

I am inclined to believe that in nearly all cases of middle ear inflammation following catarrh, or one of the exanthemata, adenoids will be found as an almost invariable concomitant, and further that we may assume a causal nexus between the two conditions.

If such a conclusion is warrantable, it is of exceptional importance. It means that to protect the ear we have to be on our guard not against simple and specific congestions and inflammations of the naso-pharynx, but against these conditions plus adenoids. And by ensuring the absence of one factor, a matter which lies in our power, we can establish a prophylaxis against middle ear suppuration, and all the grave sequelæ which occasionally follow upon it.

The other results due to so-called infective causes can only be lightly touched upon. With adenoids, there is generally a large amount of muco-purulent secretion, which trickles down the pharynx, and in most cases is usually swallowed. This secretion can be seen hanging down behind the soft palate, especially when the patient gags, and is in itself almost diagnostic of the presence of adenoids.

The consequences of the continual swallowing of this secretion are undoubtedly disorders of the alimentary tract, and it is possible that the increase in size and weight noted in children after the removal of the growth is partly due to a restoration of the assimilative powers. In cases then of chronic stomach and bowel trouble in children, the possibility of adenoids should be borne in mind. The entrance of this purulent secretion into the larynx may cause irritation not only there, but in the bronchi and lungs, and at least predispose to bronchitis and pneumonia

Inflammation and enlargement of the cervical glands also result sometimes in connection with infection from the naso-pharynx, and the fact that such a large proportion of cases of adenoids are proved to be tubercular, points to the necessity of removing a possible source of general tubercular involvment.

I am aware that by focusing one's attention on some pathological condition, one runs the risk of altogether over-estimating its relative importance

The gynæcologists of a former generation who ascribed every female ailment to an "ulcerated cervix," or a retroflexed uterus; or the writer of to-day who finds the source of all the ills to which flesh is heir in uric acid, are warnings not to labour this matter of adenoids unduly.

But taking into consideration this one point alone, that the great majority of cases of deafness are caused by adenoids, one would be justified in suggesting that there should be a systematic examination of all children between the age of five and fifteen years, and wherever adenoids are well marked, or are causing symptoms of deafness and nasal obstruction, removal should be advised.

I believe that at present there is rather a reaction against operation, owing probably to the fact that the naso-pharynx has often been scraped out simply because some lymphoid tissue was felt in its normal position on the vault. But however much one may deprecate this practice, it should not be allowed to cause prejudice against the well-marked benefits accruing from the operation in selected cases.

With regard to the operation itself, nothing need be said. The question of the anæsthetic is, however, of some importance. Chloroform is undoubtedly most often used, but it is unsparingly condemned by some authorities. It is certain that there have been a relatively large number of deaths from chloroform anæsthesia in this operation, and this should unquestionably cause hesitation in its use. I have used ether on a good many occasions, and have found that quite young children took it well, and that it did not cause any perceptible increase in hæmorrhage. But for some time past I have employed nitrous oxide exclusively, and am convinced that where obtainable it is the ideal anæsthetic for this operation.

The actual unconsciousness to pain lasts, I believe, considerably more than a minute, though the patient may begin to struggle and moan in 20 or 30 seconds, and this affords ample time to complete the operation.

The advantages of nitrous-oxide are its safety, the rapidity with which the patient becomes completely conscious after the operation, and the absence of vomiting, depression, and other after-effects which are almost invariable in chloroform narcosis.

I think that if medical men would accustom themselves to the use of nitrous-oxide, and not leave it entirely in the hands of the dentists, they would find it an anæsthetic of the utmost value in minor surgery. As regards after-effects of the operation, I have observed that while feverishness, swollen cervical glands, and acute middle ear suppuration are not uncommon among hospital patients, they are hardly ever met with in private practice. One can only ascribe this to the septic surroundings among which the children of the poorer classes live.

"Emphysematous Otitis, due to the Bacillus Aerogenes Capsulatus." A. Francis, M.B., B.C., published in *Australasian Medical Gazette*, October 20, 1900, is referred to in *Medical Review of Reviews*, December, 1900.

"Use and Abuse of Arsenic in Skin Diseases." By William J. Munro, M.D., appearing in *Australasian Medical Gazette* for August, 1900, is referred to in *Treatment*, December, 1900.

THE MATERNITIES OF PARIS.

By Edward Connor.

It was not due to the decreasing depopulation of France that benevolence selected the road to establishing maternity asylums for fatherless and motherless children, or such infants as were abandoned by unmarried mothers to check infanticide, or replace the fathers or mothers who desired to escape the rearing of their progeny from unnatural motives or selfish ends. The first maternity asylum was founded in 1787, by Marie Antoinette, and the Princesse de Lamballe, who was the devoted friend of the unfortunate queen. The lady-patrons of this maternity hospital were the successive Lady-soverigns of France, down to the Empress Eugenie, wife of Napoleon III The office was transmitted with the Crown, and so all France was subject to it. At present every large town is independent, and possesses its own maternity. They are, not the less, administered on the same lines as those in Paris, that which implies that they are subject to the control of the the Central Charity Board, and to their unique plan of management. In 1700, the population of France was 21 millions; in 1789, 26; and in 1891, 38,343,000. The summarised census of 1896, shows a steady decrease of the population since 1890. That diminution is manifest in 61 out of 86 departments. That cannot be attributed to the minute division of property in France, for in Rhenish Prussia, where property is a little less divided than in France, the rate of mortality is 38 per cent, while in the Valley of the Garonne, in France, it has dwindled down to 16 per cent. Children are more precious as population dies out. Hitherto infants had to depend on the protection and vigilance of parents; to-day they have to depend upon the vigilance of the state, because among the working classes, parental devotion is powerless and sterile to bring up babies. The efficacy of a maternity asylum was largely linked with facilities where women could, as in Austria and Russia, be secretly confined, if they so desired; they leave it without their name being known. In 1802, a code of regulations was drawn up for France, where the *accouchement* of women could take place secretly if they chose. M. Drouineau, in 1878, advocated special asylums for the same purpose. This lead the Deputies, in 1890, owing to a survey of the whole question, and the increasing agitations, to have blind or mute maternities where mothers could effect their confinement without making known their name or origin. This led to the Government proposing a Bill of thirty-six articles, sanctioning a service of material assistance under the authority of the Prefect in each department. The women were asked no questions on being admitted, only to fill up a form—in case of death—which would be sealed and handed to her on leaving. The women were rigorously isolated, and could have no communication with anyone outside during the term of their residence. In these secret maternities, no clinical lectures took place; no visits to the patients were allowed without the permission of the Prefect; nor then until the patient was first apprised; no magistrate, inspector-general of hospital, or administrator could enter such a woman's room.

When a woman is thus secured against the evidence of her fault, there is no necessity for her resorting to any crime—infanticide—to conceal her shame. Then there was the greater responsibility resting upon the official world, to insure that infants thus rescued, were sent out to be properly nursed. From 1833 to 1862 there were 5,304 indictments for infanticides, 1,998 of the accused were acquitted; in addition to other punishments there were 55 condemnations to death, out of which 40 cases were commuted. The last *tower*, called *tour*, or receiving basket, was abolished in 1866, at Marseilles Foundling Hospital. But there was another "machine to depopulate," as it was called. The rescued children were sent into the country to be reared by the contracting, the mercenary nurses, the latter received an initial sum of money, and a monthly allowance in payment, but they were really under no control. Their treatment of infants was a veritable "massacre of the innocents," the death-rate among the nurslings amounted to 60 and in some cases did reach 90 per cent. A gallant citizen grappled with the abuse, and carried a law, called after him the "Roussel" law. By this enactment, the nurses were placed under the inspection of local committees, of which the resident dispensary doctor—a Government functionary—was the moving spirit. He was assisted by some of the inhabitants of both sexes, the clergy, the national teachers, etc, so that the death-rate fell immediately from 80 to 16 per cent.

No mother has at present any motive to destroy her offspring. At 72 Rue d'Enfert-Rochereau there is, in connection with that refuge for infants, a special office, quiet, and secluded, where the mother has only to bring her baby, from whom she desires to separate, and hand it to the nun in charge, day and night. A matriculate number in metal, is fastened to the child's ankle, the mother receiving the counter part. No questions are ever asked The mother can take away, if she pleases, the infant next day, henceforth only known by a number, or it will be kept until twelve years old, and then apprenticed to an artisan or a cultivator in the country. Many mothers when they wed the putative father of their child at once remove the infant from the *depôt* Very generally they make up out of their savings a small donation for a thank offering for the funds of the asylum. It is officially known as the *Hospice des Enfants Assistés.* It contains about 706 beds, 378 for pauper children, 272 are cradles, and 146 for rescued pauper and morally depraved children. The state soon saw itself in the necessity to replace those parents who abominably abandoned their children, or exploited and ill-treated them to feed their vices. The unfortunate children had to be permanently separated from such parents to avoid their becoming recruits in the army of crime. This law was voted in July, 1899, according the state the right to remove the child from all control on the part of unnatural parents. The children are reared here, educated and sent to be trained in professional schools, until able to earn their own livelihood.

The *hospice* or home also admits the children of mothers who are themselves patients in hospitals, or who are destitute in consequence of their father having to undergo a short term of imprisonment. It also receives from the country in *depôt* wet nurses, destined to take charge of the rescued children. The *hospice* also cuts out and prepares, all the baby-linen that charity intends to distribute in Paris, and the rural districts. The indigent mother whose lying-in takes place at her own home is medically attended free; she receives the necessary baby-linen gratuitously, a cradle, and five francs during her illness, as well as five francs monthly pending ten months, when the weaning takes place; she is strictly urged to suckle her child. In some cases she will be accorded a wet nurse. The mother can be loaned sheeting and further requisites by other charitable societies, that supply the midwife free, and personally visit the patient. Religion knows no distinction in the way of assistance.

The question of food, that is, of alimentation, becomes one of great importance. Here the matter affects children from their birth until they are eighteen or twenty-four months old. Now, the only article of diet to consider is milk—cow's milk understood. Spiegelberg states that during the first three or four weeks of life, two parts of water added to one part of milk is sufficient; after three or four months more milk may be given, until undiluted milk may be wholly employed from five to six months. To each 1½ pint of diluted milk, one ounce of milk sugar may be added. During the first half-year a child consumes 1½ to three pints daily of human milk. In order to receive a similar amount of food stuffs from cow's milk, it would require to take 5½ pints daily, with two parts of water. The quantity of food must vary, of course, with childhood. The infant may be supplied with the best food and yet not thrive. The cause of this will be found to be due to indigestion. The child has eaten to excess, and milk contains much cellulose; it is, perhaps, too acid or has been badly prepared. Generally speaking, milk is accepted as a perfect, or as the French say a "complete" food. This is not quite exact as we shall see. Milk contains four per cent. of caseine and albumen, 3.7 of fat, 4.8 carbohydrates, 0.7 of salts, and 86.8 of water. The proportion of nitrogenous to non-nitrogenous food constituents does not reach the hygienic standard, which is 1 to 3·5 or 4·5. Consequently, cow's milk cannot be considered as being a *complete* food.

The ratio is one to four in the case of human milk, therefore, the latter is the most suitable for children The next best milk are those of the ass and the mare. But the milk of the ass is deficient in fat, while that of the mare has less proteins and fat than the milk of the ass. In the case of cow's milk, it must be brought up to the requisite human milk standard by the addition of sugar and arrowroot. It should be borne in mind that milk tends to produce constipation, it clots in the stomach, hence why lime and barley waters are employed to dissolve these. Diluting the milk removes some of the casein or clots, while a little sugar will increase the non-nitrogenous matters, or hydro-carbons. Care should be taken to have the milk as sweet and as pure as possible. It can rapidly turn by the action of the bacilli. In this state it is totally unsuitable as a food substance, and is the primary cause of vomiting, flatulency and diarrhœa—in a word, of infantile cholera. It should be remembered, too, that contaminated milk is a fruitful cause of diphtheria. The maternities are in this sense well looked after. The authorities have at Bicêtre the alm house for old men—a central dairy where nothing but pure milk is obtainable and delivered to all the asylums and wet nurses. Connected with the institution is a Municipal Training School for the nurses of "both sexes" for hospitals.

PROCEEDINGS OF BRANCHES.

QUEENSLAND BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

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The annual meeting of the Queensland Branch of the British Medical Association was held on Friday, January 25th, 1901, in the Rooms, Elizabeth Street, the following members being present:—Dr. Thomson (President), Drs. Taylor, Hopkins, Sutton, Espie Dods, Kerr-Scott, Wield, Hutchens and Brockway.

The **President**, in a few eloquent words, touched upon the severe loss sustained by the profession, the nation and the world, in the death of Queen Victoria, and moved the adjournment of the meeting. He suggested also that steps should be taken towards sending a message expressive of the sympathy of the profession in Queensland with the members of the Royal Family, and of loyalty to King Edward VII.

God Save the King.

The adjourned annual meeting of the Branch was held on February 8th, tho following members being present:—Dr. Thomson (President), Drs. Taylor, Hardie, Connolly, Peter Bancroft, Orr, Kerr-Scott, Espie Dods, Wield, Hawkes, Robertson, Sutton, Wilton Love, Comyn, Nall, Carvosso, Price, and Brockway (hon. sec.)

Dr. Ham was announced as a visitor.

Drs. Row, Harding and Shorter were elected members of the Branch, and Drs. Ormerod, White and Waugh nominated for membership.

The **Secretary** announced that as an outcome of the resolution adopted at the last meeting the following letter had been addressed to His Excellency, Lord Lamington:—

"Your Excellency,—At a meeting of the Queensland Branch of the British Medical Association, held last evening, but adjourned in token of respect to the memory of Her Majesty the late Queen, the following resolution was adopted, which we were instructed to forward to you with the request that you would kindly take charge of it on behalf of the Branch:—'The Queensland Branch of the British Medical Association, representing the profession in this State, desire to express their very deep sympathy with the members of the Royal Family in the loss sustained by them and the Empire through the death of our beloved Queen Victoria, and also their devotion and loyalty to His Majesty King Edward VII.

"We have the honor to be,
"Sir,
"Your obedient servants,
(Signed) "John Thomson, M.B., President.
"Archibald B. Brockway, Hon. Sec."

A reply was received from the Private Secretary of the Governor intimating his pleasure in taking charge of the resolution until, with others of a similar nature, it was forwarded to the Secretary of State for the Colonies.

The by-laws drawn up by the sub-committee were submitted to the meeting and approved.

The Annual Report of Council and the Financial Statement were read and adopted. They were as follow:—

Annual Report of Council for the Year 1900.

"Gentlemen,—Your Council have much pleasure in presenting the report of the year's work, the first since the reformation of the Branch with the inclusion of the members of the Queensland Medical Society, and they regard the smooth and pleasant manner in which the proceedings have been conducted as a hopeful augury of the success of the Branch under its new and fuller conditions. Fourteen new members have been elected during the year, there have been two resignations and six deaths, making an increase of membership of six. The thanks of the Branch are due to the Government for the use of the Pharmaceutical Society's Room for meetings and for the Library. It has, however, been felt by your Council that this room is in some ways imperfect, and if, without incurring additional expense, a more suitable one can be obtained they hope that a change may be made during the present year. The President elect and the Secretary have examined some rooms with the view of placing the matter before you at an early date.

"The Treasurer will present a statement of receipts and expenditure, the consideration of which by your Council has resulted in a proposal for raising the subscription of town members, which will be placed before you. Your Council would urge upon all members to forward their subscriptions early in the year in order to avoid the receipt by the Secretary of urgent requests for payment from the General Secretary of the Association, and your attention is desired to the proposed by-law which disallows voting power to members whose subscriptions are in arrear. There has been an average attendance of seventeen at the meetings, the more important business of which has been as follows:—

"March.—Discussion upon 'Cases of Renal Calculus,' Dr. Hopkins. Discussion upon 'The Characteristics of the Plague Bacillus,' Dr. Wilton Love.

"April.—'Pelvic Hæmatoma in the Broad Ligament due to Ectopic Gestation, with three cases illustrating Remarks and Treatment,' Dr. Connolly.

"May.—Election of Sub-committee to consider and report upon the advisability of forming a Medical Defence Society for Queensland. Election of Parliamentary Sub-committee.

"June.—Discussion upon 'Some Points in connection with the Diagnosis of Plague,' Dr. Lightoller.

"*Special meeting* for the consideration of the draft of a Bill to amend the laws relating to medical practitioners.

"A deputation consisting of members of the Branch, together with the members of the Medical Board, waited upon the Home Secretary, to place before him their views on some points in connection with the new Medical Bill.

"July.—'Intranasal Pressure as a Cause of Headache,' Dr. Francis.

"August.—Report of Medical Defence Sub-committee adoped, and the Sub-committee empowered to draw up Articles of Association and to enrol members.

"*Special Meeting.*—Discussion upon the new Health Bill. A deputation waited upon the Home Secretary with reference to suggested amendments to new Health Bill.

"*Special Meeting.*—Discussion upon the steps necessary to be taken to combat the opposition of the Pharmaceutical Society to the new Medical Bill.

"September.—'Chronic Empyema of the Antrum of Highmore,' Dr. Robertson. 'Notes of a Case of Emphysematous Otitis due to the Presence of the Bacillus Aërogenes Capsulatus,' Dr. Francis.

"October.—'Some Remarks upon Appendicitis,' Dr. Hopkins.

"November.—'The Non-operative Treatment of Some Forms of Tubal Disease,' Dr. Hawkes.

"December.—Nomination of office-bearers for 1901. 'Some Notes on the Plague,' Dr. Turner.

"In addition, a number of interesting cases and specimens had been exhibited, though it is in the matter of these that your Council feel that the meetings have been most deficient. They hope, however, that in the coming year the members will endeavour to make clinical exhibits a special feature of the meetings, and that the office of Curator of the Museum, which you are asked to establish, will not be a sinecure.

"There have been eleven meetings of Council during the year, with the following attendance:—Dr. Thomson, 10; Dr. Francis, 4; Dr. Byrne, 2; Dr. Connolly, 10; Dr. Hardie, 2; Dr. Taylor, 10; Dr. Bancroft, 8; Dr. Brockway, 10.

"Signed on behalf of the Council.

"JOHN THOMSON, M.B., President.
"ARCHIBALD B. BROCKWAY, Hon. Sec."

The election of officers for 1901 resulted as follows:—President, Dr. Taylor; Vice-Presidents, Dr. Francis and Dr. Thomson; Council, Drs. Hopkins, Robertson, Wilton Love and Carvosso; Treasurer, Dr. Peter Bancroft; Auditors, Drs. Orr and MacNamara; Secretary, Dr. A. B. Brockway (51 Wickham Terrace).

Dr. THOMSON read his Presidential Address (see p. 47), which was illustrated by a series of excellent photo-micrographs, exhibited by means of a lantern by Mr. Pound.

Dr. TAYLOR then took the chair, thanked the Branch for his election, and moved a vote of thanks to Dr. Thomson for his address, which was adopted with acclamation.

Dr. THOMSON acknowledged the vote of thanks.

QUEENSLAND BRANCH OF THE BRITISH MEDICAL ASSOCIATION,
BALANCE SHEET, 1900.

DR.

1900. Jan. 1 to Dec. 31.	£	s.	d.
To Balance from 1899...	71	13	9
" " Queensland Medical Society	33	10	3
" Subscriptions, etc....	196	2	0
	£301	5	1

CR.

1900. Jan. 1 to Dec. 31.	£	s.	d.
By Subscriptions—			
British Medical Association ...	156	19	6
Australasian Medical Gazette ...	61	7	9
Australasian Medical Journal (Melbourne)	1	1	0
" Rent...	11	1	0
" Honorariums—Assistant Secretary for 1899 and 1900	23	2	0
" Printing, Stationery, Exchange, Banking, Charges, Postage, and Petty Cash ...	17	14	6
" Bookcase and Repairs	19	5	0
" Wreath	2	2	0
" Balance to 1901	8	13	1
	£301	5	1

Examined and found correct,

A. W. ORR, } Auditors.

February 8th, 1901.

PETER BANCROFT,
Hon. Treasurer.

PROCEEDINGS OF OTHER SOCIETIES

REPORT OF ANNUAL MEETING OF THE SOUTH AUSTRALIAN MEDICAL DEFENCE ASSOCIATION.

◆

THE first annual meeting of the South Australian Medical Defence Association was held at the Adelaide University, January 10th, 1901.

Present: Dr. Swift (president) in the chair, Drs. Brummitt, Todd, A. A. Hamilton, Giles, A. E. Wigg, E. W. Morriss, Jay, Marten, Hayward, Benham, Michie and Mainwaring.

The PRESIDENT apologised that the meeting was held in January instead of December, as prescribed by the rules, owing to an oversight.

The minutes of the general meeting, December 21st, 1899, were read and confirmed.

The annual report was read by the President and adopted.

The TREASURER presented his balance sheet for the past year, showing a credit balance of £73 8s. 11d., which was adopted.

The following officers were elected for the year 1901:—President, Dr. Swift; secretary, Dr. Mainwaring; treasurer, Dr. W. T. Hayward; council, Dr. Henderson, Dr. E. W. Morriss, Dr. Jay, Dr. Hamilton, Dr. A. E. Wigg; auditor, Dr. Corbin.

Dr. MORRISS proposed and Dr. TODD seconded a vote of thanks for the retiring secretary, Dr. Michie, who was leaving for England. Carried unanimously.

Dr. BENHAM introduced the question of the present management of the South Australian lodges. He objected to the way some of them advertised and canvassed for members, and thought that some wage limit should be enforced.

Drs. TODD, HAYWARD and HAMILTON spoke on the question.

The PRESIDENT replied that if definite charges were brought before the association, they would receive every attention, but in the absence of such nothing could be done.

W. R. C. MAINWARING,
Hon. Sec.

FIRST ANNUAL REPORT.

The Council of the Medical Defence Association of South Australia has great pleasure in presenting to the members a report of the proceedings of the first year of its existence.

The Council considers it a matter for congratulation that the efforts to found this society have been attended with such marked success. We have now a membership of 77 members.

We regret exceedingly to have to record the death of our much esteemed member, Dr. Robert Stewart, of Hindmarsh.

One member, Dr. Lawrence, of Hutt Street, has withdrawn from the association, as he decided to continue to hold the post of surgeon to the Adelaide Medical Provident Club, although the Council pointed out to him, even if he did not know it before, that clubs of this description are prejudicial to the interests of the medical profession.

The Council has held seven meetings, which have been attended by the majority of the members.

No serious matter has been brought under the notice of the Council during the year, but many members have written for the advice of the Council on various questions. In one instance two members decided to submit their "difference of opinion" to the decision of the Council instead of taking it into a court of law. The Council is thankful to say that its decision was accepted by the members concerned, who were probably saved heavy legal expenses.

Another matter referred to the Council by the South Australian Branch of the British Medical Association was the question of the Australian Natives' Association. After making enquiries the Council decided that at present there was no need to take any active steps except to keep a watchful eye on the proceedings of this body.

The Council hopes that members will not be content with the present status of the association, but will individually do all in their power to further its interests and induce other members of the profession to become members. It would like also to see members take an interest in the nominations for membership of the Council at the next annual meeting, and not leave the vacancies to be filled by nominations in Council.

The Council greatly regrets to have to report the resignation of their energetic secretary, Dr. Michie, owing to his departure for England.

We beg to direct attention to the preparation **HEDONAL** to be obtained of Mr. G. Arnold, 191 Clarence Street, Sydney. The exceedingly favourable results, which have been obtained by its administration as a hypnotic in cases of simple, uncomplicated insomnia, have now induced us to introduce this preparation into commerce. Hedonal, in doses of 24 to 30 grains, is efficacious especially in cases of simple, uncomplicated insomnia, in the lighter forms of nervous agrypnia, neurasthenia, and hypochondria. We beg to call special attention to its prompt effect, as well as to its absolute harmlessness.

WE have received from Messrs. Burroughs, Wellcome and Co. a specimen of "Tabloid" (Ophthalmic) Euphthalmine Hydrochloride, gr. 1/40, which they are now issuing. Euphthalmine, when applied to the conjunctiva, produces rapid, full dilatation of the pupil, with moderate or slight disturbance of accommodation, and no change in intra-ocular pressure. "Tabloid" Euphthalmine Hydrochloride produces an effectual dilatation in twenty minutes' time. The effect appears to be at its maximum about one hour after application, and disappears entirely in from six to eight hours, frequently in a much shorter period.

LETTERS TO THE EDITOR.

DOSAGE FOR CHILDREN.

◆

(*To the Editor of the Australasian Medical Gazette.*)

DEAR SIR,—The following most simple method of calculating the dosage for children may help some fourth year's man when suddenly called on to prescribe a mixture.

Dr. Knott, of Middlesbro' (Eng.), told me the method.

Take 20 years as the standard for an adult dose. Divide the number of doses in the bottle by the age-fraction of 20, and this will give the number of adult doses of each drug to be used.

Ex.:—A ℥iv. mixture to be given to a child of five years in ʒii doses.

There are 16 doses in the bottle, age-fraction is

$\frac{5}{20}$ or $\frac{1}{4}$.

$\frac{1}{4}$ of $16 = 4$.

So four adult doses of each drug are prescribed in such a mixture.

Again—A ℥ii. mixture to be given to a child of three years in ʒii. doses.

There are eight doses in the bottle, age-fraction

$\frac{3}{20} = \frac{1}{7}$ roughly,

$\frac{1}{7}$ of $8 = 1$.

Therefore gives one adult dose of each drug in such cases.

Tabulated, the method is as follows:—

Child,	1 year	$\frac{1}{12}$	Of the number of doses in the bottle gives the number of adult doses of each drug used in the prescription.
"	2 years	$\frac{1}{8}$	
"	3 "	$\frac{1}{7}$	
"	4 "	$\frac{1}{5}$	
"	5 "	$\frac{1}{4}$	
"	6 "	$\frac{1}{3}$	
"	7 "	$\frac{1}{3}$	
"	8 "	$\frac{1}{3}$	
"	9 "	$\frac{1}{2}$	
"	10 "	$\frac{1}{2}$	

Trusting I have made the method as plain as it is simple.

I am, yours very truly,

MORRIS GAMBLE.

January 8th, 1901.

[Will the *Speculum* please copy?]

SALARY FOR AN ASSISTANT.

◆

(*To the Editor of the Australasian Medical Gazette.*)

SIR,—In regard to the letter of "Medicus" in your December issue, I think it worth while to bring under the notice of the profession in the country the appended advertisement from the *British Medical Journal* of November 17, 1900:—

> NEW SOUTH WALES.—A qualified indoor ASSISTANT wanted, able to ride, drive, and cycle, a gentleman reliable and competent. Salary, £10 a month, with bonus of £30 at the end of the first year in lieu of passage. Age, 26-34.

You will see that this generous principal offers £30 a year less than the paragon who has advertised so long and so vainly in the *Sydney Morning Herald*. Judging also by the allowance for passage money the fortunate assistant is evidently expected to come out third-class—a very proper place, however, for the class of man likely to apply for such a "billet." As your correspondent says, why form investigation committees when we have men amongst us trying to sweat their fellows and lower the status of the profession.

Yours, &c., MEDICUS SECUNDUS.

THE N.S.W. INEBRIATES ACT, 1900.

(To the Editor of the Australasian Medical Gazette.)

Sir,—Some observations on the above Act and its probable practical outcome may prove useful to your readers. I, therefore, send them for publication in your valuable journal, in as condensed form as possible.

For many years past somewhat similar Acts have been on the Statute Books in Victoria and South Australia, but are practically a dead letter, as, after a short trial in each colony, the result was pronounced to be a failure. I believe that faulty management of the homes was largely responsible for this unhappy ending of well-intentioned, and theoretically sound, social legislation. When communicating with the Victorian Government on this subject, about five years ago, I was informed that there was no intention of repeating the experiment.

Some three or four years ago an "Inebriates Act" was passed, and eventually brought into force, in Queensland. The results, so far, have not been encouraging. I believe that one ward in a hospital is the only "Inebriates Home" at present in actual use in that colony. I am under the impression that the great expense attached to the carrying on of either a licensed or Government institution, in accordance with the very stringent "regulations" under the Act, has been the chief reason for this state of things.

I very much fear that the financial problem will militate against the practical working of the Act recently passed in New South Wales, the regulations under which were *Gazetted* on the 18th January ult. With a view of considering the advisability and possibility of establishing a licensed institution under the Act, I procured a copy of the multiform regulations referred to, and waded carefully through them. I am of opinion that the extreme caution with which these have been drawn up will defeat its own end. Having considerable experience of the class of men admitted into such institutions I feel sure that these regulations permit of the lives of the medical and lay superintendents, and of the presumably conscientious staff, being made a burden to them. A very dangerous power of making secret complaints is given to the patients, many of whom are certain to abuse it, and thus cause untold trouble and vexation of spirit. As places of restraint, licensed and Government homes may answer the purpose of relieving the minds of sorely vexed friends and relatives of patients; but as places of cure, if more than, say, a dozen inebriates are living together (some of them possessing criminal proclivities), I venture to prophesy that the results will be most disappointing; and I think that in three years' time those interested in the working of this Act will find it occupying much the same position as those in other colonies, previously alluded to.

As to the expense of starting and carrying on a licensed institution, in accordance with the regulations, I put it at £5,000, as initial, and at £60 per week for total maintenance of say, 10 male and 10 female patients, or £3 per head per week, actual cost. This high figure is principally made up from the salaries and wages of the large staff necessary under the regulations, which are of a semi-private hospital and semi-private lunatic asylum character. If, however, any medical man feels bold enough to venture on such a speculation, I shall be pleased to confer with him thereon.

As to the proposed Government institution, I await its opening; but, as a warning, I may state that to herd large numbers of inebriates together in closely adjacent buildings is about the worst way of treating them. Each patient should have a separate bedroom, however small; and the "cottage" system, 12 patients in each, and somewhat remote from one another, should be adopted, to produce even reasonably fair results.

I conclude by stating that no inebriate can be cured if he does not, in his own heart, earnestly desire to be so. I work, at Rest Haven, on that basis, with fairly good results. For the information of the faculty I may further mention that, out of 350 cases, I have only had one death, and that was by accidental drowning; that medical assistance has had to be sent for only about twelve times in nearly nine years; and that the physical and mental health of those who voluntarily come to my Home begins to improve within forty-eight hours of their arrival. Such orthodox aids to their recovery as are recommended by their, or my own, medical advisers are, of course, furnished them. But the quiet, natural life, simple diet, and a knowledge that they are sympathised with and kindly treated, seem to have effects which both they and their friends think marvellous, simply because they have not given the question sufficient consideration.

Yours obediently,
COURTENAY SMITH.

Rest Haven,
February 1st, 1901.

MEDICAL ETHICS.

(To the Editor of the Australasian Medical Gazette.)

Sir,—I should be glad to have your opinion on the following case:—A. is a suburban practitioner, and had been attending a case for about two months, during which time he had met two leading Sydney medical men in consultation, both of whom agreed with his diagnosis and treatment. A. also told the friends of his patient that he would meet any other reputable medical man if they wished it.

On Saturday, 16th inst., A. visited the case at 1 p.m. and gave a very grave prognosis, but nothing was said about any further consultation. On the same afternoon while A. was away from home, the friends of the patient called another Sydney medical man, whom we will call B. He saw the case in A.'s absence, well knowing that A. was still attending, and at the same time wrote to A. stating that he hoped A. would understand the circumstances under which he saw the case, viz, A.'s absence from home, and his having been informed that A. had given up all hope, adding that he would be glad to meet A. in consultation on the following Monday. B. also stated his diagnosis of the case, which differed entirely from that of A.

I should like your opinion as to whether B. acted in a professional manner towards A. in seeing the case in his absence, especially as there was no urgency about it.

Yours truly,
SUBURBAN PRACTITIONER.

[In reviewing this case it must be remembered that on Saturday, 16th inst., A. visited the case at 1 p.m. and gave a very grave prognosis which probably alarmed the friends, who, during the absence of A., considered themselves perfectly justified in calling in B. Should B. have been informed that it was an urgent case and the services of A. were not available, then B. was perfectly justified in seeing the case on the emergency, and he acted in a most courteous and gentlemanly manner in writing as he did.—Ed. *A.M.G.*]

NOTICES.

ORIGINAL ARTICLES WILL BE INSERTED SOLELY ON CONDITION THAT THEY ARE NOT CONTRIBUTED TO ANY OTHER PERIODICAL.

All communications intended for publication may be addressed "The Editor, Australasian Medical Gazette, 121 Bathurst Street, Sydney," or to the Branch Editors for the other colonies.

Contributors will have to pay the cost of illustrations accompanying their articles.

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THE LIBRARY OF THE EDITOR OF THE "AUSTRALASIAN MEDICAL GAZETTE," 121 BATHURST STREET, SYDNEY, IS NOW OPEN TO ALL MEMBERS OF THE BRITISH MEDICAL ASSOCIATION, FROM 2 TO 5 P.M. EVERY WEEK DAY, HOLIDAYS EXCEPTED.

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THE AUSTRALASIAN
MEDICAL GAZETTE.

EDITED FOR THE PROPRIETORS BY
SAMUEL T. KNAGGS, SYDNEY, N.S.W.;
AND FOR THE OTHER BRANCHES OF THE
BRITISH MEDICAL ASSOCIATION BY
A. B. BROCKWAY, BRISBANE, Q.; L. HENRY,
MELBOURNE, VIC.; J. B. GUNSON,
ADELAIDE, S.A.; AND J. MASON, OTAKI, N.Z.

SYDNEY, 20TH FEBRUARY, 1901.

EDITORIALS.

GENERAL HOSPITAL ACCOMMODATION.

◆

THE question is arising—in fact, has arisen—whether the hospital accommodation available in Sydney is sufficient to meet the demands now made on it. If the authorities of the metropolitan general hospitals were now asked their opinion the reply would be, "we have been overfilled for months and have daily to turn away patients who urgently require active medical and surgical treatment." The remedy which we would be at first inclined to suggest would be "increase the accommodation!" "build another wing here or another pavilion there!" "we must have between two and three hundred more beds in the general hospitals of Sydney!" Before taking such a step, however, it is necessary to ask whether, with better organisation and arrangement of the charitable forces of this city, we could not manage to cope with the difficulty without further building, a proceeding which apart from the expense would be associated with many objections. Our general hospitals are rapidly becoming more and more institutions for the reception and treatment of urgent and acute cases. This presents a striking contrast now with the state of things which obtained a few years back. No longer chronic cases occupy beds to the exclusion of more urgent and curable causes, yet the number of applicants from the latter class seem to increase, and are, in fact enough to occupy all the available beds. There is room, however, for still more improvement and advance: the length of stay in hospital of many cases is more than the urgency of the case requires, which means that the scope of usefulness of such an institution is necessarily narrowed. A few examples will suffice. A patient who has sustained a simple fracture of a limb occupies a bed for a period varying from four to eight weeks; the urgency of such a case under ordinary and favourable circumstances only exists a comparatively short time after the accident, and provision could be made for such a case outside the hospital, thereby giving room for another more urgent. A case of pneumonia does not need to occupy a bed after a reasonable time has elapsed since his crisis, nor does a case of typhoid as soon as he is free from the possibility of a relapse. Many operation cases, clean cases as they are called, where primary union has been aimed at and by our more modern surgical methods and asepsis achieved, are practically free from danger, and should then make room for others; in this category are radical cures of hernia, plastic operations generally and minor gynæcological operations. All these cases of course need treatment and medical care, but not at the rate which the cost per bed in our general hospitals involves. This is where the auxiliary institutions of our charitable system should come in —the efficiency of our Government asylums needs increasing, so that they would be in a position to take on and continue the treatment of cases as soon as they could be moved; the convalescent hospitals are a great boon, but cannot accommodate half the number who need the relief. Special hospitals, such as fever, incurable, and consumptive homes have yet to come to the rescue, and we are hearing now of plans to enlarge the local hospitals in some of the larger and more populous suburbs. All these efforts seem to indicate ways out of the difficulty more practical that that of increasing our present general accommodation. A scheme of a large private hospital or paying hospital, with weekly charges from £2 2s. upwards has a great deal to recommend it. These remarks and suggestions are made not from the personal standpoint of the medical profession, but from that of the deserving sick poor, to the greatest number of whom our hospitals are expected to do the greatest good. We all know how the hospital system has been abused, and will be abused, we know at the same time how a modification of that system, on lines previously laid down in this journal, would go a good way to solving the present difficulty. Our present hospital accomodation would be sufficient if private wards, subscribers' orders, Members of Parliament's recommendation, and all payment by patients in any form were abolished. In other words, hospital abuse has brought us into this position. On the latter question the opinions of the governing bodies of our hospitals seem divided, and in one marked instance decidedly antagonistic, as indicated by the attitude of a large majority of the Children's Hospital Board towards a proposal to abolish payments by patients. This is, however, beside the question; if we cannot combat hospital abuse we must try to foster our auxiliary charitable institutions to relieve the strain on our overcrowded general hospitals.

HAIL THE NURSE!

It may be safely said that in this world there is little recognition of the merit which does not proclaim itself from the house-tops. A patient continuance in well doing unattended by any of the showier qualities which make for self-advertisement will have little power to attract the general public. Nor is this less true for a class than for an individual.

In the popular mind the trained nurse exists as a nuisance possibly necessary, but to be avoided by all means. She is regarded as a person who on the slightest provocation is imposed upon an unwilling family by the medical attendant, and tradition credits her with spending most of her time ordering the domestics about for the fulfilment of her own needs, while the patient comes in for a very scanty share of her attentions. The up-to-date fiction-mongers are not slow to take their cue from the popular beliefs, and the most gross caricatures of nurses pass as characters drawn from life and to the life. It is only necessary to mention two of the "largest-circulation" writers of the day, Hall Caine and Miss Thorneycroft Fowler, to substantiate this statement. One would fain believe, however, that this prejudice is the result of ignorance. Perhaps it may only be given to medical men to appreciate to the full the worth of the nurse. They see them come to the hospitals not for matrimonial purposes—as runs the common sneer, but with a strong and enduring enthusiasm for their profession. They see them face the long hours, the drudgery, the sometimes oppressive rule of their superiors with a cheerfulness and patience that is beyond praise. And when the nurse leaves her hospital to take up work outside, every doctor knows what a loyal and valuable assistant he has. Of course there are exceptions to this, but when one hears of some nurse who has been pronouncing *ex cathedra* judgments upon doctors, it is safe to assume that she is an elderly person, probably corpulent, and not over cleanly in her person or habits, who has never been in a hospital except, perhaps, as a patient.

Perhaps the only true instance in the world of *cameraderie* on a platonic basis is that which exists between the doctor and the nurse. Common knowledge, common training and habits of thought and occupation form powerful bonds between them, and they are necessarily joined in a defensive alliance against their mutual antagonist—the general public. In any case of serious illness how the presence of a trained nurse in the house mitigates the fears and worries of the medical attendant! He knows his instructions will be carried out to the letter, that every new symptom or change will be noted, and that if necessary he will get intimation at once. And so his lot is made so much the easier at the cost of constant vigilance on the nurse's part, a vigilance which extends itself sometimes to eighteen or twenty hours a day, sleep being a merely nominal thing to be broken at any moment by the inconsideration of anxious relatives. Who has not seen cases—say of enteric—where a nurse has stuck to the patient night and day, has refused to take the rest and recreation she was entitled to, and has dragged her charge back from the jaws of death, a veritable triumph of the nursing art. To call in once or twice a day, to examine a temperature chart and feel a pulse, and write a new prescription is a easy part to play, while the nurse has to face the long and tedious hours by the bedside, the many repulsive tasks, the petulance and thoughtlessness of patient and relatives. One result of this incessant watchfulness by the bedside is that some intelligent nurses get a wonderful knowledge of the natural history of the diseases they nurse, and their comments or prognosis generally merit careful consideration. The trained nurse is undoubtedly one of the most valuable products of our civilisation. She is the servant and minister of all, ready, like the firemen, to go off anywhere at a moment's notice, to sink personal convenience and comfort, to undertake a five hundred mile journey into the bush, or face a case of diphtheria or plague. If the general public will not realise the silent and unsung heroism to be found in the lives of so many of these women, let us of the medical profession who have eyes to see, not withhold from them their meed of praise. Let us voice this praise to those around us, and let each practitioner in dealing with his own cases see that the nurses in charge of them are not robbed of their rest and exercise, and otherwise imposed upon by the thoughtless demands of those who are ready to take advantage of the nurses' good nature or self-sacrifice. And lastly, let us promote, both by giving liberally ourselves, and by soliciting the gifts ot others, any scheme by which independence in old age may be ensured to those who have borne the heat and burden of the day.

EXTRACTS FROM REPORT OF THE HEALTH OFFICER FOR THE CITY OF SYDNEY, CYRIL E. CORLETTE, M.D., D.P.H.

MONTH ENDING 31ST DECEMBER, 1900.

◆

I HAVE the honor to submit for the consideration of the City Council a report on matters affecting the health of the City of Sydney for December, 1900.

TYPHOID FEVER.

With the development of the summer season the usual annual epidemic prevalence of typhoid (or enteric) fever has begun to show itself. There were 29 cases notified during the month, occurring within the wards of the city. In the corresponding month of the previous year (1899), there were 32 cases notified, and for the same month in 1898 there were only ten. It therefore appears that typhoid is likely to be nearly as bad this summer as it was a year ago, in spite of a decided improvement in the interest bestowed on sanitation.

A reference to the statistical table showing the wards in which the cases have occurred brings out, however, some exceedingly interesting facts. We find that the cases do not by any means come in the same proportions from the same parts of the city as they did in the previous year. For instance, part of the area forming Denison Ward was a hotbed of the disease in December, 1899, but only one case was notified from that ward in December 1900. One notices also that Belmore Ward only furnishes one case, and Lang only two. It is in my opinion, something more than a mere coincidence that these three wards were those in particular which had the largest share of the attention of the special cleansing gangs during the recent plague epidemic.

Pyrmont Ward had no cases in December, a very good begining for the season. Macquarie Ward also shewed no cases, but it can scarcely be compared with the others, because its day-population dwells so largely in the suburbs, and the notifications for these would be on suburban registers, whatever the place of infection.

After a consideration of all the above facts, I am strongly inclined to believe that though typhoid looks as if it were going to be nearly as bad as it was twelve months ago, it would be much worse than then had not some of its worst disease-foci of that date been conquered in the interval.

But at such an early stage in the season it is only possible to form opinions provisionally. So far, however, the tendency of appearances is certainly in the direction I have indicated.

MEASLES.

It will be noticed that two deaths from measles were certified in the city during December. This betokens that there must have been a considerable incidence in cases, for the mortality of measles is rarely more than five per cent., and is usually nearer two per cent. It may, therefore, be inferred that from 40 to 100 cases of the disease occurred within the city during the month. The last great epidemic of measles is of too recent date to make it probable that a major epidemic will occur during the forthcoming year, for a sufficiently large number of non-immunised children is scarcely yet ready, so as to provide the necessary material.

EPIDEMIC CEREBRO-SPINAL MENINGITIS.

There were two deaths from this disease in December, so it appears that the epidemic lasted well into the hot weather. It is unlikely that any more cases will occur for the present, since it is a disease ordinarily confined to the colder season of the year.

THE EPIDEMIC CAUSED BY POISONED BEER IN ENGLAND.

Within the last few months there has been a very serious and widespread epidemic of chronic arsenical poisoning in some parts of England, occurring only in persons accustomed to drink beer coming from certain breweries. This has been traced to the use of brewing sugars prepared by impure sulphuric acid containing arsenic, the arsenic being derived from the pyrites which are used in the manufacture of the acid. Brewing sugar (invert-sugar and glucose) produced by the agency of pure sulphuric acid is a perfectly wholesome substance, but the experience of this epidemic in England shows that the chemical materials used in the preparation of food-substances should be made to fulfil tests sufficient to exclude dangerous impurities. Legislation to this end will now almost certainly be introduced in England, as a consequence of the discoveries made. But the lesson learnt at England's cost ought to be profited by here too, where, so far, it has cost nothing, and legislative safeguards should be made accordingly. Just now, with plague memories still so recent to point us a moral, we should need no argument to persuade us of the importance of not waiting for epidemics before taking precautions.

In addition to this, the arsenical beer poisoning epidemic ought to direct us to a still further legislative improvement here. It is highly desirable that the greatest possible amount of information should be available to those whose duty it is to note the first signs, and to trace the cause, lessen the spread, and direct the prevention of any danger to the health of the community. There is no room, nowadays, to doubt the value of notification as a means of procuring this benefit for the public, and there should be provided some legal means of making various diseases notifiable, when duly so proclaimed, without their being infectious diseases suitable for inclusion under Part III. of the Public Health Act, 1896, with all the consequences that would entail. In an epidemic of arsenical poisoning or lead poisoning of obscure origin the introduction of a system of notification might be of the greatest value in tracing out the cause in the speediest manner and preventing its further occurrence. There is one disease (beri-beri) existing in Sydney, not unlike chronic arsenical poisoning in certain of its symptoms, which is not infectious from person to person, but which seems to be acquired by living in infected rooms or houses. Systematic notification of cases would help to trace out the foci of infection, which could then be appropriately dealt with, and the disease stamped out. But to call beri-beri an infectious disease in the Public Health Act sense, would be impossibly ridiculous, and to proclaim it under the 20th section of the Act could not be permitted by a sane community.

Arsenical poisoning, phosphorus poisoning, lead poisoning, and anthrax, are now compulsorily notifiable diseases in England under section 29 of the Factories and Workshops Act, 1895. The value of notification for diseases of this class is thus acknowledged, though the field of application is limited.

SANITARY REFERENCE LIBRARY.

Steps were taken during the month towards the inauguration of a good reference library for the use of the Sanitary Department. Such an equipment is an absolute necessity for the maintenance of a high standard of efficiency, and it is certain to be a great help to those engaged in the work. A set of Teale's excellent lantern slides has been included with the books, for future use in educating up the people to appreciate better the meaning and importance of sanitary methods.

Extracts from *The Therapist*, October 15th, 1898.—UROTROPINE IN THE TREATMENT OF CYSTITIS. By T. Gordon Kelly, M.A., M.D., Trin. Coll. (Dub.) Prepared only by Alfred Bishop, London; and of 18 O'Connell Street, Sydney.—I do not pretend in this short article to review the effects of the various urinary antiseptics, but simply to record my experience of the antiseptic treatment of cystitis, especially in regard to the exhibition of the drug Urotropine or hexamethylentetrainin lately introduced to the notice of the profession by Professor Nicolaier, of Göttingen. It has now been decisively proved that the cause of cystitis is an invasion of the bladder by pathogenic micro-organisms of which numerous varieties have been discovered in pathological urine. Normal urine is perfectly aseptic, but as Professor Elliott, of Chicago, says, "the large amount of organic matter which the urine contains renders it an excellent medium for development, should infection take place, in which event the bladder becomes converted into a veritable incubator for the propagation of bacteria." In the treatment of cystitis, therefore, the first and main indication must be to render the urine antiseptic, which object accomplished, we are a long way on the road to our goal—the cure of the disease. The principal drugs used for this purpose, I may say, are salol, ammonium benzoate, boric acid, guaiacol, resorcin, benzo-naphthol, sodium salicylate, creosote, etc. These drugs I have all found useful in rendering the urine antiseptic, and they have been extensively employed in the treatment of cystitis, but none of them in my experience could be called a perfectly reliable and satisfactory urinary antiseptic. One drug only in my hands answered this description, and this was Urotropine. Urotropine is a non-toxic and non-irritating derivative of formic aldehyde. It is formed by the action of four molecules of ammonia on six molecules of Formaldehyde, and was first introduced to the profession by Professor Nicolaier in 1895, who asserted that it possessed the power of dissolving uric acid concretions and also that taken per ora, it prevented the development of bacteria in the urine. I have not had an opportunity of thoroughly testing its power of dissolving calculi, so cannot personally say whether it possesses this property, but in cases of cystitis and of phosphaturia its action has, in my hands, been almost specific, and I have been satisfied beyond all expectations with the result. Urotropine appears in the urine as early as fifteen minutes after its administration, and its presence can be recognised twelve hours later after a dose of 7½ grains. It is soluble in 1·2 parts of water at 68 deg. Fah., and the reaction of its solution is faintly alkaline. In some cases, Urotropine is said to cause a slightly burning sensation in the bladder if large doses are taken, but no patient to whom I gave the drug ever complained of this to me. In prescribing Urotropine, my experience teaches that first the reaction of the urine should be discovered, and if very acid a little citrate or acetate of potash, or if very alkaline, a little delute mineral acid should be given in addition to the drug.

"Useful Hearing Obtained in a Deaf Mute, aged nineteeen years." J. Lockhart Gibson, M.D,, published in *Australasian Medical Gazette*, October 20, 1900, is quoted from in *Medical Review of Reviews*, December, 1900.

In a previous issue we drew attention to the newly established Sydney Branch of Messrs. Denyer Brothers, at 281 George Street (opposite Hunter Street). This firm, in pursuance of their policy of keeping abreast of all the latest improvements that modern science and skill can devise in surgical instruments, hospital furniture, surgical dressings, ligatures, trusses, etc., have just added to their large stock many cases of newly landed and "up-to-date" English and American goods. Gentlemen of the medical profession, nurses, and chemists will find a visit to the establishment amply repay them, and any such call for inspection of the complete stock will be cordially welcomed by the managing principal, Mr. R. W. Denyer. The general public can obtain all those articles that are necessary to relieve afflictions, and the artificial limb is a speciality, the firm being sole agents in Australasia for the celebrated firm, A. A. Marks, of New York. A complete workshop, with skilled workmen, is in full swing, and any article, instrument, appliance or repairs required by the profession or the public will receive the careful and prompt attention of experienced and capable artificers.

MEDICAL NOTES.

THE Queensland Joint Epidemic Board has appointed Dr. A. C. Halford as Medical Officer of Health, at a salary of £700 per annum. Dr. Halford is at present Medical Superintendent of the Clermont Hospital, Q.

Dr. Harold Hutchins, who held the position of Medical Officer at Colmslie, Q., during the plague, has joined the fifth contingent for South Africa in the capacity of surgeon.

At the meeting of the general committee of the Armidale (N.S.W.) Hospital on January 9th, a resolution was proposed having for its effect "that no person be admitted to, or remain in the general wards who is in a position to pay for medical attendance, but must go in the private wards of leave the institution." The motion was postponed.

Lieut.-Colonel R. Vandeleur Kelly, Capt. W. R. Cortis, and Lieutenant H. K. Bean have been appointed to proceed to South Africa with a Contingent of the N.S.W. Army Medical Corps in March.

MILITARY INTELLIGENCE.

NEW SOUTH WALES.

THE following appointment has been gazetted:—*University Volunteer Rifle Corps*—James Froude Flashman, gentleman, B.A., B.Sc., Ch.M., M.D., to be Second Lieutenant.

Colonel W. D. C. Williams, P.M.O., has resumed duty from January 21st. The G.O.C. has placed on record, in General Orders, his appreciation of the valuable services rendered by Capt. and Temporary Major G. H. Walton Smith as acting Principal Medical Officer to the Military Forces from January 17th, 1900, to January 21st 1901.

NEW ZEALAND.

His Excellency the Governor has been pleased to approve of the following appointment:—*New Zealand Volunteer Medical Staff*—Kenneth McAdam to be Surgeon-Captain. Commission to date from the 13th November, 1900.

TASMANIA.

His Excellency the Administrator of the Government has been pleased to approve that the undermentioned gentlemen be granted Commissions in the Defence Force of the Colony as Surgeon Lieutenants:—Dr. Thomas Eastoe Abbott, Dr. Patrick Joseph Godfrey.

His Excellency the Administrator of the Government has been pleased to approve, on behalf of Her Majesty the Queen, that Major and Brevet Lieut.-Colonel E. J. Crouch, Medical Officer of the Southern Tasmanian Artillery, be awarded the Volunteer Officer's Decoration.

OBITUARY.

JOHN EDWARD WILLIAM CRUISE, M.B., B.Ch., B.A.O. Roy. Univ. Irel. 1890, died at Orange, N.S.W., on February 2nd, aged 36 years.

ALFRED ROBERT WAYLEN, M.D. St. And. 1858, M.R.C.S. Eng. & L.M. 1856, L.S.A. Lond. 1856, for many years Colonial Surgeon, died at Guildford, W.A., on January 10th. Dr. Waylen was 72 years of age.

The late Dr. L. E. F. **NEILL** graduated B.A. 1886 with honours, and gold medal after having won classical scholarships. Graduated M.B., Ch.M., 1890 with honours after having obtained classical prizes. He was first appointed resident medical officer and then senior resident medical officer and acting superintendent to Prince Alfred Hospital.

After leaving the hospital Dr. Neill visited America, and on returning took charge of Dr. C. Dagnall Clark's practice at North Sydney, during the latter's absence in England. Here his popularity brought him many friends and admirers who continued so to his death. In 1893 Dr. Neill started practice at Double Bay where he remained to his death and had at the time worked up a large practice. His practice was not confined to this district, but extended amongst all classes, rich and poor in and around Sydney.

Dr. Neill held many appointments and it was a surprise to all that he could compass his work, surgeon to the Woman's Hospital, assistant surgeon to the Sydney Hospital, surgical tutor at Prince Alfred Hospital, together with numerous smaller positions in connection with charities all of which involved time and labour and no remuneration. He was ever ready to give his services in any case of distress and liberally supported any charity.

To those intimately acquainted with him he was known as an honest, straightforward, and earnest man, keen to a degree in anything he attempted, a powerful debater and speaker, strong and convincing in argument and fearless in expression of opinions if he believed them to be right. Cheery and bright in manner, the antithesis of a growler, liberal in spirit he had few, if any enemies, he was by nature a man who could not offend. He was a fighter alike for the rights and dignity of the profession and for the claims of the sick poor; not knowing what selfishness was he worked till his physical powers failed him and left behind a record almost unequalled for one of his age.

The positions Dr. Neill filled in connection with various charities and medical societies will be hard to fill by his death. The profession has lost one of its most valued members.

CHANGE OF ADDRESS, ETC.

BRADE, Dr. G. F., late of the Newcastle Hospital, N.S.W., has settled at Nanning, W.A.

BROWN, Dr. R. P., a recent arrival, has settled at Bridgetown, W.A.

BUCKNELL, Dr. L. F., late of Kogarah, has succeeded to Dr. Coutie's practice at Petersham, near Sydney.

FROST, Dr. A. J., has commenced practice at Fremantle, W.A.

GREEN, Dr. T. A., has returned to Sydney from South Africa.

JEFFERIS, Dr. J. E., has removed from Newtown to Gosford, N.S.W.

LIPSCOMB, Dr. T. W., has succeeded to Dr. W Robertson's practice at Stanmore, N.S.W.

MCCLELLAND, Dr. W. C., has succeeded to the practice of Dr. Jefferis at Newtown, Sydney.

MITCHELL, Dr. R. T., late of Sydney, has succeeded to Dr. Scott's practice at Wee Waa, N.S.W.

MORTON, Dr. John, has removed from Camden and succeeded to the practice of the late Dr. L. E. F. Neill, at Double Bay, Sydney.

O'KEEFE, Dr. F. J., has succeeded to Dr. Bucknell's practice at Kogarah, N.S.W.

PRING, Dr. A., formerly of Taroom, has returned from England, and commenced practice at Beaudesert, Q.

PURCELL, Dr. H. C., has removed from Sydney to Broken Hill, N.S.W.

ROBERTSON, Dr. W., has removed from Stanmore, N.S.W., to North Terrace, Adelaide.

RYAN, Dr. M. J., has settled at Nymagee, N.S.W.

SHUTER, Dr. R. E., late of Port Augusta, S.A., has commenced practice at Rothschild Road, Caulfield, Melbourne.

SMYTH, Dr. S. R., has removed from Howard, Q., to Mt Hope, N.S.W.

WEST, Dr. F. W., of the Sydney Hospital, has succeeded to Dr. Morton's practice at Camden, N.S.W.

MEDICAL APPOINTMENTS.

The following Medical Appointments are announced:

Astles, H. E., M.D., to be a member of the Dental Board, W.A.

Barber, G. W., to be Railway Medical Officer at Kalgoorlie, W.A.

Barling, E. V., M.B., to be Resident Medical Officer Prince Alfred Hospital, Sydney.

Barton, J. A'B. D., M.B., to be Resident Medical Officer Prince Alfred Hospital, Sydney.

Blackburn, C. B., M.B., to be Medical Superintendent Prince Alfred Hospital, Sydney.

Burkitt, G. O., L.R.C.S., to be Aural Surgeon Perth Public Hospital, W.A.

Cleland, J. B., M.B., to be Resident Pathologist Prince Alfred Hospital, Sydney.

Darbyshire, D. E., to be District Medical Officer, &c., at Canarvon, W.A.

Davies, Leslie, M.B., to be Public Vaccinator for Birchip, Vic.

Deravin, Dr. A. F., to be Resident Medical Officer, Fremantle Public Hospital, W.A.

Green, T. E., M.B., to be Public Vaccinator for Bendigo U. F. S. Medical Institute and Dispensary, Vic.

Halford, A. C. F., M.D., to be Medical Officer of Health to the City of Brisbane.

Ham. B. B., M.R.C.S., D.P.H., to be Commissioner of Public Health for Queensland.

Hamilton, A. A., M.B., to be a member of the S.A. Medical Board.

Handcock, C. L., M.B., Ch.M., to be Justice of Peace, Goulburn District, N.S.W.

Hardie, Dr. D., to be a member of the Board of Health, Q.

Harris, W. E., M.B., to be Resident Anæsthetist and Registrar Prince Alfred Hospital, Sydney.

Harvey, S. F., M.R.C.S., to be Gynæcologist Perth Public Hospital, W.A.

Hickenbotham, J. R., to be District Medical Officer, &c., at Newcastle, W.A.

Horrocks, Herbert, M.D., to be a member of the Dental Board, W.A.

Horrocks, H., M.D., B.S. Lond., to be Assistant Gynæcologist Perth Public Hospital, W.A.

Hurst, Dr. J. D., to be Officer of Health for Laverton Board of Health, W.A.

Jameson, Adam, M.D., to be a member of the Dental Board, W.A.

Jewell, C. O., M.B. Lond., to be Government Medical Officer and Vaccinator at Hillston, N.S.W.

Jones, Sydney, M.B., to be Resident Medical Officer Prince Alfred Hospital, Sydney.

Kelsall, H. T., M.D., M.R.C.S., to be Ophthalmic Surgeon Perth Public Hospital, W.A.

Knaggs, Samuel T., M.D., F.R.C.S.I., to be a member of the Dental Board of N.S.W.

Love, Dr. W., to be a member of the Board of Health, Q.

Lyons, M. M., M.B., to be Health and Medical Officer at Gladstone, Q.

Macintosh, A. H., M.B., to be Resident Medical Officer Prince Alfred Hospital, Sydney.

McWilliams, G. F., M.B., &c., to be Physician Perth Public Hospital, W.A.

Muir, J. C., M.B., to be Public Vaccinator for Women's Hospital, Melbourne.

Munro, A. W., M.B., to be Gynæcological Clinical Assistant in the Outpatients' Department Prince Alfred Hospital, Sydney.

O'Connor, M., M.B., &c., to be Senior Physician Perth Public Hospital, W.A.

Patten, N. S., M.B., to be Health and Medical Officer and Visiting Surgeon to the Prison, Normanton, Q.

Randell, A. E., M.B., B.S., to be Assistant Surgeon Perth Public Hospital, W.A.

Robinson, T. H., to be Railway Medical Officer at Albany, W.A.

Rockett, P. J., M.B., to be Public Vaccinator for Maffra, Vic.

Rogers, R. S., M.D., to be Visitor to the Adelaide and Parkside Lunatic Asylums, S.A.

Row, L. E., M.D., to be Assistant Medical Superintendent of the Hospital for Insane at Goodna, Q.

Saw, A. J. H., M.D., B.S., to be Surgeon Perth Public Hospital, W.A.

Taaffe, O. G., L.R.C.P. Edin., to be Assistant Physician Perth Public Hospital, W.A.

Thompson, Dr. Jno., to be a member of the Board of Health, Q.

Tratman, F., M.D., M.R.C.S., to be Senior Surgeon Perth Public Hospital, W.A.

Trethowan, W., M.B., M.S., to be Assistant Surgeon Perth Public Hospital, W.A.

Verco, G. M., M.B., to be Resident Medical Officer Prince Alfred Hospital, Sydney.

Willmot, Dr. R., to be an Official Visitor of the Hospital for Insane, New Norfolk, Tas.

Williams, E., to be Railway Medical Officer at Bunbury, W.A.

Wilson, J. H., L.R.C.P., &c., to be a member of the Licensing Court for Warren, N.S.W.

Young, H. C. T., M.D., to be Gynæcological Clinical Assistant in the Outpatients' Department Prince Alfred Hospital, Sydney.

REVIEWS.

ANATOMIE GENERALE APPLIQUEE A LA PHYSIOLOGIE ET A LA MEDECINE (General Anatomy applied to Physiology and Medicine). By Prof. Xavier Bichat, Paris. Part I., No. 1, 1900.

The author's name is guarantee for thoroughness in detail and originality of method. This work appears to be *an enquiry into vital phenomena undertaken by a physiologist from the standpoint of histology.* Based upon minute anatomy, its details embrace physiology and applied medicine. With recent works on systemic anatomy it has nothing in common but the name.

It undertakes a study of the vital properties of specialised bioplasm, as well as a research along various channels into the *primum mobile.*

The author claims that in order to establish the distinctive character, the special organisation, the proper life of simple tissues—their composition, their constituent elements, their chemical analysis should be first determined; the conclusions adopted being thus founded upon divergence of intimate structure, and not upon abstractions. He believes it to be impossible to appreciate the phenomena of vital activity until its manifold functions can be studied from this aspect.

The first instalment excites lively interest and a desire to have the rest as soon as possible.

LES MALADIES QU'ON SOIGNE A BERCK (Diseases treated at Berck). Par Dr. F. Calot, Paris, 1900.

Dr. Calot, surgeon to various hospitals and institutions at the marine watering place, Berck, relates his large experience of cold abscess, adenitis, osteitis, white swelling, coxalgia, Pott's disease, scoliosis, congenital hip disease, club foot, etc., chiefly of tubercular origin. The cardinal maxim he insists upon is—that to lay bare a tubercular focus is to open a door which too often leads to death. He inculcates the safe cure of tubercular mischief closed. Considering that secondary infection is the gravest of dangers he discourages surgical operations, but uses subcutaneous injection of modifying liquids into the tubercular area, curing adenitis without leaving a cicatrix, white swelling without leaving impairment of function, etc., etc.

Of the means of attaining these desirable results he gives notes of numerous cases, which merit attentive perusal.

GYNÆCOLOGICAL OPERATIONS, EXCLUSIVE OF THOSE INTERFERING WITH THE PERITONEAL CAVITY. By Skene Keith, M.B., F.R.C.S. Edin. Author of "Text-book of Abdominal Surgery." etc., etc., Edinburgh and London: Young J. Pentland, 1900.

This writer is already favourably known as the author of an important text-book of abdominal surgery; and his name secures a bias, as it were, in its own favour, through suggesting recollections of a generation who lived before the days of antiseptics, and are now passing away, among whom the honoured name of Thomas Keith, the father of our author, took a leading place, as the surgeon whose ovariotomy statistics showed the signally successful mortality of less than five per centum. The present work gives evidence of the surgical training Dr. Skene Keith has had the advantage of receiving. Within the space of 118 pages we have a clear and practical account of the operations of gynæcology exclusive of those interfering with the abdominal cavity. "The general knowledge which one gradually acquires in the course of practice, often without any special study may enable one to come to a conclusion that an operation ought to be performed; but very precise information is required when one has actually to perform the operation." This precise guidance is well supplied in this little book.

An introductory chapter describes the preparations necessary for an operation. The directions here given show that Dr. Keith has opinions of his own, which he believes in, and in the practice of which he has no fear. If patients, nurses, and surgeons practised a high average of cleanliness, "learned to be *properly* clean" (our author is nothing if not emphatic), a good deal of the elaborate ritual of modern surgery would not need to be practised at the time of operation, in the presence, mayhap, of a trembling patient. Thus, the nail brush, even a new sterilised one, is a mistake; if too hard, it removes the epidermis; if soft, it is useless; and whether hard or soft its use causes separation of the nails, increasing the depth of a convenient nest for germs. Again, "shaving the pubis and vulva is quite unnecessary," and very inconvenient, in most of these operations. Patients did very well twenty years ago, before these extreme gentlemen, who may be described as the *Flagellantes* of Listerism, had appeared among us.

The second chapter on methods, instruments, and appliances is full of sound counsel. The remainder of the book is given to descriptions of the operations. We have read several of these and consider them excellently given. Among the newer operations we observe a good description of Dudley's operation for dysmenorrhœa. The book can be confidently recommended as a reliable guide for the general practitioner.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

THE following persons have been duly registered as legally qualified medical practitioners in their respective states:—

NEW SOUTH WALES.

Barling, James Eric Vernon. M.B., Univ. Syd. 1900.
Deck, John North. M.B., Univ. Syd. 1900
Durack, William Joseph, M.B., Univ. Syd. 1900.
Franceschi, Carlo, M.D., Univ. Florence 1888.
Griffiths, Frederick Guy. M.B., Univ. Syd. 1900.
Kress, Daniel Hartman. M.D., Univ. Michigan. U.S.A., 1894.
Kress, Lauretta Eby, M.D., Univ. Michigan, U.S.A., 1894.
Maffey, Reginald William Henry, M.B., Univ. Syd. 1900.
Olver, William Beath, M.B., Univ. Syd. 1900.
Paton, James Wright, M.B., Univ. Syd. 1900.

And for Additional Registration:

Busby, Hugh, M.Ch., Univ. Syd. 1899.

NEW ZEALAND.

Davis, Cyril Stephen, M.R.C.S. Eng. 1888, L.R.C.P. Lond. 1888, M.D. Univ. Brussels 1900.
Halse-Francis, Ferdinand Henry, L.S.A. Lond. 1894, M.B., B.S. Univ. Durh. 1894, M.D. 1897.
Hamilton, George, L.R.C.P. Lond. 1900.
Lucas, Stanley Arthur, M.R.C.S. Eng., L.R.C.P. Lond.

TASMANIA.

Clark, William Goodwin Chadbourne, M.D. Boston 1898.

VICTORIA.

Buckley, Edward William, M.B. Melb. 1900.
Costelloe, John, M.B. Melb. 1900.
Gillespie, Leslie Thomson, M.B. Melb., 1900
Lambert, Thomas Edwin Llewellyn, M.B. *et* Ch.B. Melb 1900
Major, James Perrins, M.B. Melb. 1900
Shackell. Percy Moira, M.B Melb. 1900
Strahan. Septimus George, M.B. Melb. 1900.
Walsh, Gerald, M.B. Melb. 1900.

Additional Qualifications Registered:

Crivelli, Marcel Urbain, Ch.B. Melb. 1900 (*a.e.g.*)
Orchard, William Henry, Ch.B. Melb. 1900.
Scott, Robert, M.D. Melb. 1900 (*a.e.g.*)
Stanley, Henry Riddell, Ch B. Melb. 1900

WESTERN AUSTRALIA.

Brown, Robert Pollock, M.R.C.S. Eng., L.R.C.P. Lond. 1897.
Frost, Alfred J., M.B., B.S. Roy. Univ. Irel. 1900.
Teague, D. G. M., M.B., Ch M. Edin. 1896.

NEW SOUTH WALES.

LEGALLY QUALIFIED MEDICAL PRACTITIONERS UNDER CLAUSE 3, ACT NO. 70, 1900, PROVIDING FOR THE REGISTRATION OF UNQUALIFIED PERSONS IN CERTAIN CASES.

Brackenbury, Arthur Elliott
Faithfull, George
Monkhouse, William Henry
Ody, John Andrew Wilberforce
Ryan, Michael John.

BIRTH AND DEATHS.

BIRTH.

MULLINS.—On the 15th February, at Murong, Waverley, Sydney, the wife of George Lane Mullins, M.D., of a son.

DEATHS.

CLUBBE.—On the 4th February, at Stafford, England, Ethel Marion, the wife of Charles P. B. Clubbe.

NEILL.—On the 25th January, at his residence, Edgecliff, Sydney L. E. F. Neill, B.A., M.B., Ch.M., aged 25 years.

Dr. J. Macdonald Gill's article on "Fibrinous Rhinitis," which appeared in *Australasian Medical Gazette*, October 20th, 1900, is noticed in *Medical Record*, New York, December 15, 1900.

In our advertisement columns (p. xxii.) appears an advertisement of the Inter-state (formerly intercolonial) Medical Agency. This Agency has been in existence for a number of years, most of its business having been done from Melbourne. Mr. F. W. Loxton, who for many years successfully represented Messrs. Burroughs, Wellcome & Co., has been appointed to take charge of the Agency in Sydney, and will make it the head office. Mr. Loxton having a thorough knowledge of all these states is in a position to advise medical men newly arriving here. The filling of medical vacancies on ocean liners will also receive his careful attention.

AUSTRALASIAN MEDICAL GAZETTE.

ORIGINAL ARTICLES.

PRESIDENTIAL ADDRESS.

By Geo. Palmer, M.B., &c., Ararat, Vic.

Read at the Annual Meeting of the Ballarat Branch of the British Medical Association.

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Following our usual custom it devolves upon me to make way for my successor in the presidential chair, and to thank you sincerely for the high honour of having elected me to the office which I am vacating. I recognise that my election thereto was a graceful compliment to the country members of the Branch rather than to any special merit of my own, and I must express regret that, owing to residence at such a distance I have been unable to attend every meeting, and show the interest in the Branch which I have felt since its original inception in 1886, under the name of the Ballarat District Medical Society, and of which I think I have been continuously a member up to the present in its altered form.

My esteemed predecessor was able to point to increased interest in the meetings of the Branch, and I am very glad that interest has been more than maintained, and have no doubt will reach the stage of enthusiasm under increasing membership, and the continued guidance of a tactful and energetic secretary, whose courtesy on many occasions I have to acknowledge.

Apart from the pleasure of meeting and discussing interesting cases, the regular exhibition of pathological specimens by Dr. McGowan has been most instructive, and I think we might further his efforts by conserving those exhibits permanently, and in time possess a museum of great value to country members, available for their inspection at our regular meetings. At present, many useful specimens are lost, owing to the want of a place for their reception. At the same time, the advisability of obtaining a suitable room for our meetings might be considered. I feel very much in sympathy with the suggestion of Dr. Kenny, ex-President of the Victorian Branch, as to the desirability of a federation of all the Australian branches for advantageous reasons given in his presidential address of last year, and which, doubtless, suggest themselves to your minds in these federating days, but a necessary prelude to this must be the active and engaging interest of each of us in extending our membership, and voicing the advantages of the solidity of the profession in Ballarat and the surrounding districts.

It is opportune, on occasion such as the present, to refer to a former hospital resident and member of our branch, who, by the exercise of his talents, both as a medical man and a journalist, has been brought into favourable prominence by tragic events in China during the late crisis. It is given to few men to read their own obituary notices, but Dr. G. E. Morrison has had that unique opportunity, and we can heartily congratulate him on his escape from what we now know to have been a perilous situation, in which, from all accounts, he bore himself with courage and credit, both to himself and his combined professions. And now, gentlemen, it is time for me to flap my wings and crow from the presidential fence to birds of a feather, for a quarter of an hour (I'm afraid a bad one), and I have thought that, instead of giving you a resumé in definite chronological order, I would simply put forth such thoughts as came uppermost in my mind in reflecting on the improved conditions under which medicine is practised at the opening of the twentieth century.

In looking back on the conditions of life obtaining at the beginning of the past century one cannot but be struck with the marked improvement in the general weal amongst civilised communities of the present day. Apart from social, economic and political considerations incidental to a higher civilisation, the influence of disease and more especially of wide-spread epidemic and communicable diseases, seems to have been an important factor in tending towards this marked amelioration, affecting all classes and finding increased power of distribution through the medium of agencies which themselves have been remarkable in bringing communities into ultimate relationship with one another, epidemic diseases have thrust themselves from the care of individuals to the concern of nations, and their dire effects have been instrumental to a large extent in promoting that sympathy and interest evidenced so largely at the present day towards suffering humanity, especially amongst the humbler classes.

Outbreaks of typhus, cholera, plague, smallpox have compelled attention to the welfare of communities as a whole, and the occurrence of a single case, in the person of the humblest unit, has been a matter of grave concern to the State so unfortunate as to harbour it. With increased knowledge and observation, these and similar diseases have been shown to be greatly influenced by the conditions of life under which they originated: poverty and filth, overcrowding, absence of light and air impurity of food and water supply, and owing to the far-reaching results not only on the general health of the people, but also on the commerce of the nation, the general condition of the poor has become a matter of state interest. Quite recently we have had sufficient illustration in the occurrence of bubonic plague at Sydney, Melbourne, Adelaide, and other Australian cities, and we can well realise the responsibility of the former city, and its sparing no expense to cleanse its highways and byways, and how fortunate the occurrence of the disease at that time instead of 12 months later.

Even in Japan, where the community can hardly be ripe for hygienic sanitation, modern systematic action on the part of the State has prevented this disease maintaining a footing where formerly panic would have replaced order. Glasgow also has well shown the necessity and benefit of prompt attention to epidemic disease amongst the poor and the success attending concerted action by sanitary authorities.

The ravages of small-pox epidemics, with their high mortality and maiming and disfiguring effects, have caused the appreciation of that valuable legacy of Jenner's amongst most of the more highly civilised communities, so that to-day the task of the surgeon and physician is lightened by the absence, amongst vaccinated communities, of the old virulent epidemics and the pitiful after effects consequent thereon. Vaccination, however, like Tommy Atkins, often requires the presence of the war of an epidemic for its full appreciation, and we hear quite lately how "the band begins to play" in this direction in the presence of an alleged outbreak in New York, where vaccination is being carried out wholesale. However, it is the discovery of the germ theory of disease, brought about in great measure by the investigation of communicable disease, which has given such an impetus to sanitary progress and preventive medicine, and to vast improvements in the general conditions of life. To it we owe the introduction of a new science—bacteriology —far reaching in its effects on medicine and surgery, as well as on chemistry and commerce, also the marvellous changes wrought by Lister's antisepsis. And it is pleasing to reflect that the appreciation of success in the varied fields of work opened out by this discovery is international, and Pasteur is as highly regarded in England as Lister in France, and so too with the scientific enquirers of Germany, Austria, America, Russia, Italy, and lately amongst Eastern nations, Japan.

The successful investigations of Koch during the last quarter of a century have directed attention to tuberculosis, now regarded as communicable, and this disease has therefore been of special concern to progressive States, whose interest has been awakened in the care and protection of infant life, in the physical culture of children in the homes and habitations of the poor, and in the healthful conditions of labour. The widespread dissemination of this disease has further directed attention to the relationship between the diseases of mankind and those of animals, and to beneficial legislative interference with regard to food supply. Diphtheria, so lately robbed of much of its former dread, scarlet fever and typhoid have warned against contamination of food and water supply. Amongst progressive peoples, then, a recognition of the means by which the propagation of disease may be lessened has been shown by the enacting of sanitary laws and regulations, compelling at least a certain standard of cleanliness of towns and cities, attention to food, milk and water supply, drainage, and sewage disposal. Taking next the communicable diseases of the hospitals of 50 years ago, and even less, hospital gangrene, erysipelas, septicæmia, tetanus and puerperal fever have said good-bye at least in their epidemic form, and this we know to be due to the introduction of antiseptics and the methods of precision, order and cleanliness which that system entails.

It is within the knowledge of many here how only 20 years ago some of these diseases were so prevalent in the Melbourne Hospital as to lead the worthy coroner of the day to state, that the walls of the institution were saturated with erysipelas and septic disease, yet, through the influence of antisepsis, the institution still remains, doing beneficial work free from the opprobrium of that day. The number and character of institutions for the care and treatment of the poor and needy, acknowledging neither sect nor nationality, but only the cosmopolitan qualification of sickness or emergency, bear witness to the stage of civilisation amongst the communities fostering that sympathy which prompts their support. And only a few years ago, the present King of England, in his then capacity of Prince of Wales, initiated and heartily supported the movement for a national contribution to the metropolitan hospitals and convalescent homes, and thus gave proof of the recognition of the higher towards the humbler classes, and of that sympathetic interest for which the 19th century will ever be memorable. These institutions also attest the gratuitous skill and industry supplied by our profession, the members of which coming in contact with all sorts and conditions of men of all sects and nationalities have been broadened in their tolerance to the weaknesses of afflicted humanity. The indirect benefits of the hospitals of to-day on the betterment of the people are perhaps hardly recognised by the general public. Becoming intimately associated with the institutions of medical education, the knowledge of disease and of the means of treatment acquired in hospitals, is ultimately disseminated to the advantage of the public through the medium of medical men graduating therein.

But another gratifying result of the modern hospital is the trained nurse, and in this capacity woman finds not only a new and congenial occupation, in which she is unrivalled, but also has opportunity of displaying the innate sympathy of her sex, and that skill and care of such assistance to physician or surgeon.

In referring to conditions which have benefited suffering humanity and have led to such improvements in medicine and surgery, it is impossible to omit reference to the discovery of anæsthetics, without which our present surgery would not be realisable. It is useful also to note the influence of the Press, both lay and medical, in diffusing valuable information amongst the public on matters of public health and hygiene, and in preparing it for the reception of progressive medicine and sanitation. The accessibility of medical aid to the public has been furthered by the increased proportion of medical men to the population and also by the formation of provident clubs and friendly societies, formed originally with the idea of rendering mutual help amongst the artisan and working classes in time of sickness, but lapsing into serious abuses occasionally, to the disadvantage of the profession.

The improvements in medical education, which have resulted in the practitioner of to-day, may be dated from the introduction of antisepsis and the science of bacteriology, for it is from this time that the advances in medicine have been most marked, both by therapeutic discovery and improvements in surgical technique. The educational course of the medical student exacts a greater amount of technical knowledge and work, but there are greater facilities for acquiring that knowledge and of seeing much more practical work than was possible in the pre-antiseptic era.

Whilst the technical knowledge of the medico of to-day is undoubtedly greater, I think that the old school practitioner, taken from a class in whom the advantages of inherited culture were more general, and in times when the conditions of entrance into the profession were necessarily more restrictive, offers an example profitable to remember, and by bearing in mind his refinement of taste, culture, and courtesy, we have nothing to lose and everything to gain in upholding the dignity of our profession and maintaining the esteem and confidence of the public. Post graduate classes, medical societies, congresses, and an embarrassment of riches in the shape of valuable medical books and journals offer the present day graduate every opportunity of keeping himself up-to-date in his profession. Recently, too, he is still further favoured by the establishment of "Schools of Tropical Medicine," suggested by the work of Manson and Ross; and the experiments in Italy and West Africa in connection with Manson's mosquito theory of the conveyance of malaria, we are glad to know have been so successfully carried out by English, French, and Italian observers.

Looking further into the conditions of modern practice, definite aids to diagnosis have been established by improved chemical and bacteriological methods. medical electricity, the microscope, the appropriate use of anæsthetics, the developments of X Ray photography, and the careful use of exploratory incision and aspiration. In medicine, the trend of treatment seems to lie more and more in the way of aiding the natural resisting forces of the patient and, in the language of the late Sir Thomas Watson, of "piloting" him through his disease. Hence greater stress is now laid on open-air treatment, regulated dietary and graduated exercises, hot-air methods, hydrotherapy, and in nervous diseases electricity, massage, and the so-called "rest cure."

Hypodermoclysis and enteroclysis, with the use of saline solution, are some of our more recent and useful methods of sustaining the powers of the patient; and they seem to have a useful future even in septic disease as a means of diluting poisons.

Lavage of the stomach has its proper use in cases of fermentative dyspepsia and also in cases of "foul stomach" in connection with abdominal disease requiring operation.

Inhalations of oxygen have also obtained a footing as a most useful means of relieving cyanotic conditions and tiding over crises.

Very few drugs are therefore now used with the idea of direct antagonism to a disease, though recognised in appropriate cases as successful symptomatic adjuvants.

The compilers of the "British Pharmacopœia" exercise a wise discretion in "holding fast to that which is good," and such old friends as mercury, arsenic, iron, quinine, digitalis and opium are not likely to be replaced by any of the more recent complex compounds, useful as some undoubtedly are, but requiring the tests of time and experience which the older drugs mentioned have withstood.

The use of antitoxin in diphtheria appears now to be a well-accredited legacy to posterity, and, whilst still on trial, serum therapy offers hope in the future for the treatment of many diseases, cholera, typhoid, plague, etc.

In surgery, summing up tersely, in the words of Treves, the conditions tending to improved practice have been (1) improved knowledge of anatomy, (2) a readier means of arresting hæmorrhage, (3) anæsthetics, (4) antiseptics. Under the first heading may be cited as examples the very successful operations of Macewen on the brain, and also more recent spinal operations for the relief of nervous disease due to improved methods of localisation. Compression forceps are, of course, a *sine qua non* in the surgery of to-day, As to anæsthetics, lately intra-spinal injections of cocaine have been introduced and used with some success, but it is improbable that with more improved methods of preparing chloroform and ether that general anæsthesia will give way to local, for the state of unconsciousness is not without its benefits to operator and patient. Antiseptics and aseptic procedures are noted in every modern operating room, and are, of course, the basis of all operations, and through them conservative surgery has reached its present satisfactory status. Plastic surgery and modern processes of skin grafting have been eminently successful in restoring deformities and remedying contractures, and have been a conspicuous feature of recent conservative surgical triumphs.

The experiences gained by military surgeons in the South African war promise to lead to important medical and surgical teachings which no doubt will be duly published when all records bearing thereon are completed.

And now, gentlemen, before concluding, two events of national importance claim attention. On January 1st, 1901, we hailed with pride the birth of the Australian Commonwealth under happy auspices. As a profession we will be called upon to do our duty in watching over the interests of public health; in assisting to master the diseases peculiar to Australasia; in ensuring uniformity of sanitary legislation amongst the States; federal action in connection with imported disease, plague, smallpox, etc.; and lastly, in endeavouring to uphold the status of our profession, and proving ourselves as citizens worthy of the laudations showered upon the peoples of Federated Australia. Lastly, all Australia is saddened by the death of our well-beloved Queen, whom we now mourn, and under whose benignant reign so many of the triumphs of surgery and medicine have their record. She ever held a high appreciation of the medical profession, and has frequently honoured many of its members amongst them, especially the greatest of them all—Lord Lister.

SOME PRACTICAL MODIFICATIONS IN INSTRUMENTS USED IN THE TREATMENT OF DISEASES OF THROAT, EAR, AND NOSE.

BY G. T. HANKINS, HON. SURGEON TO THE DEPARTMENT AT THE PRINCE ALFRED HOSPITAL, SYDNEY.

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ADENOID CURETTE.

THIS is the well-known Gottstein curette with the addition of a flexible shutter of spring steel running in grooves like a tonsillotome, which can be pushed down after the sweep has been made and the dissevered growth safely extracted without the formation of a tag.

SPOKE-SHAVE ADAPTED FOR THE REMOVAL OF SEPTAL SPURS.

The modification consists of a weight which slides on the stem. The cutting edge of the instrument is made quite flat so as to avoid grooving the bone. When the instrument is fixed in position and has got a bite on the bone, the weight is lightly taken between the first and second fingers and made to deliver a series of taps on the flange near the handle, on the principle of the "monkey" pile driver. Solid bone can by this means be cut through with much less distress to the patient than by a forcible pull, and the instrument is well under the control of the operator.

EXPLORING NEEDLE FOR MAXILLARY ANTRUM.

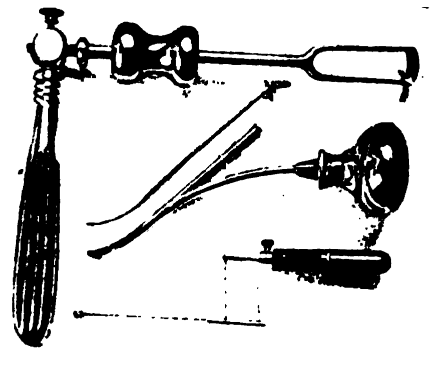
This is intended for use through the lower nasal meatus. It is made of steel tube 4mm. outside measurement, with walls 1mm. thick. The end is ground off at an angle with the stem and presents a rounded cutting edge. The handle is so fixed that a slight jerk sends the point clean through the mesial wall of the antrum, the hand, meanwhile, being kept well out of the line of vision. The stylet is introduced to clear the needle and a syringe fitted to aspirate the contents of the cavity.

MODIFICATION OF LUCAE'S PRESSURE PROBE.

The object in view is to avoid all friction and sound resulting therefrom, to preserve elasticity, and to ensure that the pressure exerted on the membrane is in the same direction as the force applied. This is done by attaching the probe, which is made for lightness of aluminium wire, to the handle by means of two equal lengths of zither wire, the enclosed space forming a parallelogram. The tip of the probe, which is slightly cupped, is dipped in melted glyco-gelatine, which sets immediately as a hanging drop and forms a soft elastic cushion for contact with the membrane. This coating can be immediately removed by dipping in warm water, and can be renewed with very little loss of time.

This probe makes a convenient electrode when it is desired to apply the faradic current direct to the membrana tympani, in which case the elastic coating is replaced by a fragment of moist cotton wool. Any slight vibration of the operator's hand is by this arrangement neutralised by the delicate springs.

The accompanying illustrations will I think make the construction of these instruments perfectly clear. They were kindly photographed for me by Mr. E. A. Humphery, one of the medical students at the Sydney University.



A CASE OF INTESTINAL ANASTOMOSIS BY THE USE OF MURPHY'S BUTTON.

By C. E. Todd, M.D. Brux., L.R.C.P. Lond., Adelaide.

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I have for some time been on the lookout for a suitable case for the use of Murphy's button. This instrument is at once so simple and so effectual that it can be safely used by any surgeon of ordinary intelligence, who can lay no claim whatever to any special knowledge of intestinal surgery. The more complicated methods of uniting intestines by elaborate sutures, require, I think, an amount of practice and dexterity which only a specialist is likely to possess. The introduction of Senn's decalcified bone plates was a step in the direction of simplicity, but even these cannot compare with the ease and readiness of a Murphy's button.

Mrs. D., aged 57, had always been a healthy woman with the exception of an attack of sub-acute rheumatism, until 18 months before I saw her, when she had influenza badly. Since then she had never been strong and had progressively lost flesh. Some months after the influenza she had an attack of abdominal distention and pain preceded by constipation and accompanied by vomiting and liquid diarrhœa. These attacks have lasted ever since. At first they came on only every three or four weeks and lasted less than a day, but of late they recurred once a week or ten days, they have been more severe, the diarrhœa has been a less constant symptom, and the vomiting has been worse. Her sickness consisted at first of the contents of her stomach and it didn't stop until most of her small intestines had been emptied. The amount of coffee coloured fluid that she brought up in her later attacks was enormous. During the time that she had been subject to these attacks she had steadily lost flesh. Her weight had decreased from twelve stone to eight in twelve months. I happened to see this patient just at the beginning of an attack. She had intense pain and swelling in her abdomen. The swelling was of a boggy character, and the abdomen was everywhere dull on percussion. On account of the distention I could feel nothing, and a rectal examination gave negative results. In order to hasten the sickness which was obviously coming, I gave an emetic, and by the next morning, when the contents of the stomach and small intestines had been ejected, the abdomen was quite flat. I was then able to feel a well defined lump in the right lumbar region just above the cæcum. I diagnosed intestinal obstruction by a growth, involving the lumen of the gut, and advised an abdominal section with a view first to accurate diagnosis, and second to possible removal. While waiting for operation the patient got acute bronchitis, and very nearly died of it, and it was a long time before I could get her into a condition which would permit a major operation.

During her bronchitis her vomiting attacks became worse, and there was almost complete obstruction. For the last fortnight before the operation the patient was kept alive by rectal feeding. At a private hospital, under ether, which was well taken, the lump in the right side could be readily made out. It felt like a broad ring round the intestine. I made an incision in the middle line below the umbilicus large enough to introduce my hand and arm into the abdomen, and I could then easily feel the growth. It was a hard collar like lump, strongly adherent behind, and not to be brought into view by any force which appeared justifiable. I then determined to unite the distended small intestine to the transverse colon below the seat of obstruction. I had very great difficulty in finding the large intestine, and it was so shrivelled and tucked up under the ribs and overlaid by the distended coils of small gut. I at last brought it into view, and with a small needle and fine silk, I ran a suture round an area in which I had determined to open the gut for the introduction of the female part of Murphy's button. I found the large intestine very vascular, and it bled freely. A small hole was then made in the area enclosed by the suture, and one part of Murphy's button—held upon clip forceps—was rapidly introduced. The ends of the suture were then pulled tight so as to grasp the shaft of the button and then tied. The same procedure was carried out on the most prominent part of the small intestine. This was a much easier business as the gut was so distended and the ligature was easily worked. I made a very small hole and easily insinuated the male part of Murphy's button. At once the bowel contents began to escape, so a small piece of cotton wool was pushed into the shaft of the button as a plug This piece of cotton wool, although quite preventing the escape of fæces, gave rise to a good deal of anxiety in my mind afterwards, because on trying the effect of it outside the body I found it very liable to get jammed, and thus prevent the intestinal contents from passing onwards. My anxiety proved unnecessary as the pledget of wool easily passed afterwards. I would not, however, put a piece in again as I think it might very likely cause trouble. The two sides of the Murphy's button were easily put together and the gut was thoroughly cleaned of what little fæces must of necessity escape. The abdomen was closed without any drain The patient rallied from the operation well and had no ether sickness. On the second morning I thought there was a bulging over the transverse colon, and this proved true, as in the afternoon the patient had several actions of the bowels—in one of which the cotton plug came away. All apparently was going well with the case. There had been no rise of temperature, and I had allowed some liquid food by the mouth. On the morning of the fifth day, after an unusually good night, the patient got suddenly faint and short of breath, and died in a few minutes. Unfortunately, I could not get permission to examine the body in any way. This end was most disappointing, as I had begun to congratulate myself upon the fact that the critical stage was over.

A CASE OF INTESTINAL ANASTOMOSIS.

By J. A. BONNIN, M.B., B.S. ADEL., F.R.C.S. ENG., ADELAIDE, S.A.

READ BEFORE THE SOUTH AUSTRALIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION, ON FEBRUARY 28TH, 1901.

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THE following notes on a case under my care are intended to supplement Dr. Todd's paper on intestinal anastomosis. There is nothing very remarkable about the case, except perhaps that the patient recovered; but it may be worth recording as an instance of the amount of damage and contamination that the peritoneum may be subjected to under certain circumstances without giving rise to any untoward symptoms.

You have had an opportunity of seeing the patient—Mr. W. R.—this evening, and those of you who saw him before he left the hospital, will have noticed the contrast in his general condition, and the rapidity with which he has gained flesh and strength.

I first saw Mr. R. on October 11th of last year at the North Adelaide Private Hospital, where he was recovering from an operation for strangulated right inguinal hernia, which had been performed by Drs. Stewart and Poulton. But before detailing his later progress, I must give you a little of his previous history.

He is 23 years of age, single, and employed as a skilled workman in the Islington Loco. Works. Previously, he had followed the occupation of a jockey, and it was through a fall from a horse that he sustained three years ago, that he acquired the right inguinal hernia. He wore no truss, and though the hernia remained down constantly, it gave him no trouble till about 15 months ago, when he states that great pain and swelling "of the testicle" on that side came on with vomiting and abdominal pain, lasting a few days; and from that time onwards, similar attacks of "colic," as he calls them, recurred at intervals of from one to six weeks. Altogether, he thinks that he had considerably over twenty of these attacks. It was not, however, until September 23rd of last year that definite strangulation occurred, and then the symptoms arose quite suddenly while he was in a stooping posture cleaning an engine. Obstruction was complete, with great pain and vomiting at the time, though later on, the comparative absence of shock was rather remarkable. He was removed to the North Adelaide Private Hospital, and the operation for the relief of the strangulation was undertaken by the late Dr. Stewart and Dr. Poulton about eighteen hours after the onset of symptoms, on September 24th. A loop of ileum of considerable size was found in the sac. It was black and, I understand, in a rather "doubtful" condition. As however the surface was still smooth and glistening, it was returned, and the pillars of the ring merely brought together by a few through and through sutures in such a manner that the wound could be easily opened up if necessary.

Though the vomiting continued for the first three days after the operation, with a slightly subnormal temperature, very rapid pulse and acute pain in the abdomen at intervals, he gradually progressed towards recovery; the bowels first acting on the third day.

On October 2nd all the stitches were removed and a good deal of pus came away, the temperature being up to 100° for the first time.

During the next week his condition did not alter greatly, occasional attacks of acute abdominal pain, with very loose, dark, foul-smelling motions were present.

When I first saw the case on October 11th, there was pus coming from each of the stitch holes, and the edges of the wound were gaping with a granulating surface reposed between them. The scrotum on the right side was full, tense, and painful. I incised it and evacuated several ounces of pus. The testicle was retracted and atrophied. The operation and scrotal wounds gradually healed and the patient was discharged on November 24th; but during the last fortnight before leaving the hospital, several attacks of abdominal pain with abundant foul-smelling vomit occurred, the bowels being at the same time very relaxed, and the peristalsis of dilated coils of intestine plainly visible through the abdominal wall. Before relief came very loud sounds could be heard, as if the fluid contents of the bowel were being forced through a narrow passage. After the patient returned home, he remained free from pain for a few days, but soon the same symptoms returned with greater violence, and the vomiting became somewhat stercoraceous. Dr. Poulton, with whom I consulted, advised giving the continued use of laxatives a trial before resorting to operative measures, as the obstruction had at no time been complete. The suggestion was acted upon, but with only temporary relief.

On November 26th the vomit became very fæculent, though the bowels still acted. The peristalsis of intestines caused the abdomen to continually change its shape in a most remarkable manner, and the movements of the contents could be plainly heard in the next room.

The patient was readmitted to the hospital, he was now very weak and had lost weight considerably since his discharge. In the hospital, with careful dieting, he was better till December 6th, when all the symptoms of partial obstruction again returned, and, in spite of the fact that the bowels still acted, it was decided to temporise no longer.

The following day ether was administered by Dr. Evans, and I had the privilege of Dr. Poulton's advice and help throughout the operation.

On opening the abdomen by a median incision below the umbilicus, I found a large and apparently hopelessly matted mass of intestine situated in the right iliac and right part of the hypogastric regions, very densely adherent to the parietes all along the line of the old operation scar, and in the iliac fossa below and behind it. The small intestine was enormously hypertrophied and considerably dilated. The parietal and visceral layers of the peritoneum were so absolutely incorporated with each other that I found it impossible to separate them, without either stripping some of the former from the abdominal wall or the latter from the muscular coats of the bowel, which, to add to the difficulty, were greatly thickened and very easily torn. After working for about half an hour, I at last succeeded in freeing this mass from the anterior parietes, and in bringing it more directly into view. I now proceeded to separate the adherent coils from each other, but did so at the imminent risk of lacerating the bowel. However, I succeeded in getting all but one loop separated without any serious damage, but this one loop, which proved to be the point of greatest stricture, was so densely adherent that in my endeavours to separate the one part from the other I gradually tore the lower contracted portion of the bowel from the upper dilated part, leaving a piece of bowel (continuous with the dilated part) with its mucous membrane exposed, still adherent to the adjoining coil. There was, of course, a free escape of gas into the abdominal cavity, but fortunately the gut both above and below the rent was so empty that little, if any, fluid or solid matter was evacuated. So adherent was the lower end of the upper dilated portion of the bowel, that I had to resect a small piece, leaving it still attached, in order to open out the ring-shaped loop to enable me to introduce a Murphy's button I used a button about 1⅛ inch in diameter. The part inserted into the lower dilated end of the upper portion of bowel was held in position by the usual purse-string suture, but the contracted end of the lower segment fitted so closely over the other half of the button that the purse-string suture was dispensed with. I, however, inserted a few Lembert sutures after pressing the two parts of the button together. It was found impossible to separate the small piece of bowel that had been resected from the adherent coil, and moreover there was a small perforation about the centre of the adherent surface through which a probe was passed into the lumen of the gut, showing that a small patch of gangrene had actually occurred. The patient's condition did not warrant further delay, so it was decided not to resect this portion of the bowel, and as the area of adherent mucous membrane was too broad to allow of its being invaginated longitudinally by sutures bringing the edges of the peritoneal coat together, we decided to scrape away the mucous membrane with a sharp spoon and touch the raw surface lightly with pure carbolic acid. The small central perforation was closed by a few fine silk sutures. The bowel was then returned. No mesenteric vessels needed ligature. The abdominal cavity was well flushed with normal saline solution, a glass drainage tube inserted into the pelvis through the lower end of the incision, and the wound closed. Stimulants in the form of strychnine hypodermically and a hot saline enema were administered. The patient was kept on nutrient enemata for the first three days, after which peptonized foods were allowed. The drainage tube was removed after 48 hours. Morphia hypodermically to allay abdominal pain was given several times during the first three days. On the second day, flatus was passed freely per anum with great relief. The bowels acted on the fourth day, and from this onward, the patient made an uninterrupted recovery. A little suppuration occurred where the glass tube had been inserted, and you may have noticed that there is still a minute sinus in this situation.

The patient was out of bed on the 23rd day. At no time did the temperature rise above 100°, and it only reached this point once, on the 5th day. Mr. R. was discharged from the hospital on January 8th. His weight then was 7 st. 1 lb. It is now (7 weeks later) 9 st. 10 lb.—an increase of over 2½ st. He feels perfectly well, has a splendid appetite, and his bowels act daily without inconvenience. The operation scars are sound, with the exception noted above. The right testicle is atrophied. The abdomen is a little prominent. I have not been able to feel the button. Very careful watch has been kept for it, but so far (12 weeks after the operation) it has not made its appearance, nor can it be detected "per rectum." Whether it will give rise to future trouble remains to be seen; in the meantime the patient's condition is gratifying.

NOTE.—Since I wrote the above a skiagraph has been taken by Dr. Gunson, and though the vertebræ and pelvic bones come out clearly, there is no sign of the "button." It is quite possible that it may have been unconsciously voided since the patient left the hospital.

A CASE OF SYPHILITIC ULCERATION OF THE URINARY BLADDER WITH MARKED HÆMATURIA.

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SYPHILITIC ulcer of the bladder is a somewhat unique form of urinary disorder, and a possible cause of hæmaturia, which it would be as well to take into account. I have never heard or read of syphilitic ulceration of the urinary bladder, and the following is the only definitely marked case I have seen.

The patient was a thin, anæmic Jew, 55 years of age. I could never obtain any history of syphilis, but he had suspicious scars on the legs. Nine months ago, without any apparent cause, he began to pass water more frequently than usual, and at the end of micturition there was a little bright blood. About six months ago the blood loss was at times profuse, and alarmed him, while at others he passed first clear water, then dirty, darkish stuff, and at the last a little pure bright blood. There were also occasionally small dark, black clots, irregular in shape. He never experienced any pain whatever, all that bothered him was frequency of micturition and blood. He passed urine every two or three hours by day, and two or three times at night. Exercise increased the frequency. There was always more or less straining at the end of micturition.

When an examination was first attempted the bleeding was so profuse directly a catheter was passed that the result was practically negative. After a few days rest in bed the hæmorrhage lessened, and on carefully washing out the bladder, a cystoscopic examination showed a large, irregular-shaped, deep-cut ulcer, about 1½ inches behind the left ureteral orifice. Its base was lined with black blood clot, and the lower edge was somewhat obscured by the same. There was a slight oozing of blood from the lower angle of the ulcer. The surrounding surface of the bladder was dull and blood-stained, and presented no especially peculiar features.

The patient was kept in bed. No local treatment was adopted, and 12 grains of pot. iod. were given three times a day. At the end of ten days, another cystoscopic examination was made. The ulcer before observed had shrunken, and was much more shallow. There were two or three other stellate fissured ulcers, bright red in the centre, and surrounded by a pink blush. The surface of the bladder generally was cleaner and brighter. A week later only one small superficial post-prostatic patch could be discovered. The blood ceased entirely at the end of the ninth day. The patient left hospital at the end of the month in practically perfect urinary health.

The general appearance and character of the ulcer was certainly different to any other form of vesical ulcer I had previously seen. The absence of pain is a feature somewhat peculiar to syphilitic lesions, and the ulcer was so marked that had it been any other form it would have probably caused a fair amount of pain. The peculiar scars on the legs, although no history of syphilis was present, were enough to excite one's suspicion. In addition to all this, considering that the patient had been under various forms of treatment for nine months, I purposely avoided local treatment, thinking that if the whole trouble subsided under the internal administration of pot. iod., one would hardly be wrong in assuming that the diagnosis was correct. It is at all times extremely difficult to discover the cause of hæmaturia, in fact, without a cystoscopic examination it is well nigh impossible in most instances. This man had been looked upon as a case of malignant disease, and his wasted and anæmic appearance made such a state of affairs highly probable. The case certainly possesses such interesting features that I feel that I need offer no apology for reporting it.

TREPHINING FOR DEPRESSED FRACTURE AFTER FOUR YEARS.

By John S. Purdy, M.B., C.M. Aberd., Hutt, N.Z.

C.T., boy, aged 15 years, admitted to Otaki Hospital, June 15th, 1900. Complained of severe pain above the left eyebrow and loss of memory. History of kick on forehead by a horse 4½ years ago. Had been stunned for a few minutes, but was able to ride again the following day.

About a year ago had occasional attacks of severe pain over the site of the original bruise. Also found that his memory was becoming defective. His parents and friends noticed that he was not so sharp as hitherto, and often had to collect his thoughts when spoken to. No convulsions, no tremors. Optic disc quite normal.

June 17th.—Dr. Mason trephined, removing a disc the centre of which was two inches above the centre of left superciliary ridge. On removing the button from the adherent dura mater, a distinct ridge was found in the inner table, the relic of an old fracture. The disc was split into three portions and replaced, the periosteum stitched and the wound sutured.

Except for occasional vomiting the boy appeared to be doing well on the following day. But, on the second morning after the operation, he was seized with severe convulsions starting at the naso-oral muscles and spreading right over the body. One epileptiform attack followed another in rapid succession, the boy not regaining consciousness during the short intervals. Deeming this due to the pressure of the disc, I opened up the wound and removed the disc. Whilst suturing the skin he regained consciousness, necessitating the administration of an anæsthetic. The boy unfortunately contracted scarlet fever three days after the complete removal of the disc, through the indiscretion of a visiting relative. In spite of this he made a good recovery. He has never had another convulsion. The old pain in the forehead is quite gone. The boy now states that he feels much better and clearer than before the operation. He has returned to his work as a draper's assistant. When tested in mental arithmetic he showed a quickness above the average, and stated that he could now calculate much quicker and with more confidence and accuracy than before the operation. I considered this case worthy of record as shewing the advantage of interference in such cases.

HEREDITY AND DISEASE.

BY J. FLYNN, M.B., CH.M. R.U.I., SYDNEY.

> I have been dealing with old names and well-established doctrines, and my reason for bringing them before you has been, not so much the hope of being able to contribute new facts or theories of my own as the desire to set in better order that floating knowledge which is in general possession.
>
> JONATHAN HUTCHINSON,
> "Pedigree of Disease."

DURING the greater portion of the century that has just elapsed, there has been no subject that has occasioned such keen controversy among men of science as heredity. Darwin, Spencer, Weismann, Romanes, the most profound thinkers of the age, have essayed to plumb the depths of this perplexing question. The difference of opinion concerning the nature, the meaning and factors of heredity is acutely marked; the contest waxes warm as to what is transmitted and the means of transmission. One of the most complex problems of the day is—Are acquired characters transmitted? The solution of this question has engaged and is yet engaging the highest biological authorities of our time. On the transmissibility of "acquired characters," Herbert Spencer founds his system of psychology and ethics. To students of biology the question is pregnant with interest; but the interest after all is only of an abstract or theoretical nature, in their hands it has little if any practical bearing. It is quite otherwise when we come to consider the influence of heredity on disease. Medical men are often asked how parental disease and modes of life affect the offspring. Whether for instance rheumatism or phthisis in the parent will be transmitted to children subsequently born? A knowledge of the family history; of the predispositions of some; of the vital energy and endurance of others, may be of greater importance than the most refined diagnosis derived from physical signs. An unfavourable prognosis based on the state of the heart bears a different aspect in a short lived family and one noted for its longevity. A slowly resolving pneumonic patch, a lingering pleuritic exudate is viewed in a very different light, according as its possessor hails from a healthy stock or has come from a tubercular ancestry.

The influenc Heredit external configu tion.

To appreciate the role of inheritance in the causation of disease, it is useful to review the nature of its influence in the ordinary anatomical and physiological conditions of our bodies. The influence of heredity on external configuration is so marked as to arrest the attention even of the unobservant. Compare the different races of man; observe the multitude of details in which they differ; in some the skin pigment is scanty, in others plentiful. The hair on transverse section varies from an elongated ellipse in the Negro to a circle in the Red-skin, while that of the Anglo-Saxon is a mean between the two. The form of the hair, taken as a whole, is no less characteristic of each race. The nasal bones are articulated at different angles, and the nasal index varies in different races. The maxilla is oblique and protruding in some, it is straight in others, the shape and details of the bones of the skull varies in each. The eyes are horizontal in some, and directed upwards at their outer extremities in others, the orbital index varies and so on. And yet the fertilised ovum, potentially models, or inherits the power of moulding the bodily structure in each, down to all these minute details. Even in individuals of the same race we recognise innumerable shades of difference in the colour of the skin, in the hair and eyes. And, if there are fine points of difference, so, too, there are close resemblances; we, every day, hear the remark—such a child is the image of its father! How like its mother! We see the resemblance, more especially in the countenance, expression and features. Nor is such an observation anything novel. The Romans had their Nasones, Labeones, Buccones, and other names expressive of, and in fact derived from transmitted peculiarities. This resemblance may be such, that at one stage the child resembles the father, and at a later, the mother. It may be a particular colour of the iris, a special tone in the voice, or a trick of manner which recalls the parent or grand-parent. These fine shades of difference and those minute points of resemblance were all potentially present in the fertilised ovum. Endowed with forces which are capable of moulding it into the future human being, the fertilised ovum proceeds on its career, modelling the tissues and imparting to them functions after a pre-arranged plan. This wonderful power with which we are so familiar that we are apt to forget what it implies, continues throughout life, so that sometimes we notice points of resemblance in middle or in old age that had not previously been visible. Francis Galton[1] in his work on "identical twins" has supplied demonstrative proof that all the finer details of structure and function which come into effect in after life, are virtually inherent in the fertilised ovum. After a laborious investigation of about eighty cases of close similarity between twins, he was able to obtain instructive details in thirty-five. Of these there were seven cases, in which both twins suffered from some special ailment or had some exceptional peculiarity; in nine cases, both twins were apt to sicken at the same time; in eleven cases, there was evidence of a remarkable association of ideas; in sixteen, the tastes and dispositions were closely similar. In many cases there was a failure of strangers or even parents to distinguish between them. The after lives of the thirty-five twins were also investigated. In some cases, the resemblance of body and mind had continued unaltered up to old age, notwithstanding very different conditions of life; in other cases, the parents ascribed such dissimilarity as there was, wholly or almost wholly, to some form of illness. Is it any wonder that the distinguished investigator concludes that "nature is far stronger than nurture within the limited range that I have been careful to assign to the latter. The impression that all this evidence leaves on my mind is one of wonder, whether nurture can do anything at all beyond giving instruction and professional training."

redity of ernal ucture.

The influence of heredity on internal structure, though perhaps less manifest, is not less real. Peculiarities of this nature present in the father may be revealed in the son. Witness the inability to digest the albumen of eggs and milk, which is often met with in related individuals through several generations. This must depend on the constitution of the gastric juice, which in turn is due to some peculiarity of the glandular apparatus of the stomach. This will serve as an example of thousands of other peculiarities of internal structures, some more, some less, marked.

Heredity of malformations.

Not only are normal traits hereditary, but even abnormalities and anomalies if congenital or innate in the parents are transmitted. Sedgwick, in his series of papers in the *Medico Chirurgical Review* for 1861 and 1863, supplies many interesting cases of the inheritance of supernumerary fingers, cleft iris, squinting, etc. He mentions one case where a supernumerary finger was attached to the outside of the first phalanx of the little finger. This condition had been transmitted for five generations, and the person whom he had under observation was the fourth child of a family, all of whom except the second, were born with the deformity. These cases are sometimes cited as instances of the transmission of acquired characters. Here the *new* is confused with the *acquired*. A sixth digit depending as it does on a germinal peculiarity is on its first appearance in a family as much an inborn trait as his fifth finger[2].

Heredity of structu peculiariti

Many of the defects of sense organs are transmitted. Daltonism or colour-blindness is remarkably hereditary. The distinguished English chemist, after whom the anomaly is named, as well as two of his brothers, were colour-blind. In eight families, closely allied to each other, this condition lasted through five generations and extended to 71 persons altogether. In nine-tenths of the cases, Daltonism occurs in the male sex, and it is usually transmitted through the daughters to the grandsons.

" Latent Character

The transmission of a characteristic from a grandfather to grandchild with the apparent omission in the intermediate parent of the opposite sex has been explained in various ways. But the hypothesis that best suits the conditions of the case is that the characteristics have been preserved in a latent state in the intermediate generation. By the hypothesis of "latent characters," we can understand how, for instance, it is possible for a good milking cow to transmit that quality through her male offspring to future generations. Practical breeders of stock realise that this quality is present, though latent, in male offspring from such cows. Something similar occurs in the transmission of hæmophilia. Here the character latent in the female is patent to the male. It is well-known that the inheritance of this peculiarity takes place mainly through the female line.

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[1] "The history of the Twins as a criterion of the relative powers of Nature and Nurture," by Francis Galton, F.R.S. Journal of the Anthropological Institute, 1875, p. 391.

It is well to recall to mind that there are two kinds of twins. In the one, the individuals are derived from separate ova, just as the progeny of animals which bear several young at a birth. In the other kind called homogenoeus or identical twins, there is only one ovum which produces twins by fission. In this kind the resemblance is very close, and the fact that they are invariably of the same sex proves that the sex of the individual is predetermined in the fertilized ovum.

(2) See Weismann's essays.

The daughters of such a family, although they themselves have not shown the slightest indication of the condition, are almost certain to transmit it to their male children. The sons in a hæmorrhagic family do not all invariably suffer, and if any escape their children are almost always exempt. It is never directly transmitted; it always misses a generation. Immermann records the case of two families, in the village of Jenna, not known to be related, in which this condition had been known to exist for a century. In 1855, the females of the family determined not to marry, and in 1879 the same authority states there was no longer a case of hæmophilia in the village.

Hypospadias may be and frequently is inherited on the mother's side. Ichthyosis is sometimes transmitted in the same peculiar manner. Thus Sedgwick relates the case of a boy aged 14 years, suffering from the disease. On tracing his family history it was found that he inherited it from his grandfather. Although this man had three sons and three daughters, not one of them had the disease—it skipped this generation, while of the seven grand-children (five males and two females), four of the males were affected, and none of the females; and the four males affected were children of the daughter of the original case.

Another striking instance of the inheritance of Ichthyosis is related by Darwin in his "Animals and Plants under Domestication." Here the inheritance was confined to the male sex, and it did not skip a generation. In the original case, Edward Lambert, the entire body except the face, palms of the hands, and soles of the feet were covered with warty projections, which were periodically moulted; he was commonly known as the "porcupine man." He had six sons and two grand-sons similarly affected — the two grand-sons had seven sisters who were free from the malady; the transmission continued from male to male for five generations.

Diabetes Insipidus is another condition which is remarkably hereditary. It is only reasonable to presume that the kidneys are larger than usual, and it is known that the bladder is unduly capacious. Lacombe records a case in which a mother, her three sons and daughter, a brother and his children were all affected. Gee mentions an instance where the condition was transmitted through four generations. But the most remarkable case of all is that recorded by Weil. An insipid diabetic having come under his observation, he made a most elaborate search into his family history, with the result that he traced ninety members of the family, extending through four generations. Seventy of these were living at the time. He personally examined most of these seventy cases, and traced the disease to Peter Schwistz, who was born in 1772. His descendants were five children, twenty-nine grandchildren, fifty-six great-grand children, in all ninety-one persons. Of these no less than twenty-three were certainly diabetic, and thirteen doubtfully so.

These four conditions Daltonism, the hæmorrhagic diathesis, ichthyosis and diabetes insipidus, would, at first sight, fall more naturally under the heredity of organic systems to be treated in the sequel; but they are better considered here, because the inheritance of such conditions as colour-blindness, hæmophilia, or Ichthyosis is not of the same kind as the inheritance of rheumatism, gout or epilepsy. In these latter one only inherits the organisation that predisposes to those conditions, in the former he inherits the condition itself. A man does not inherit apoplexy, or epilepsy, but a liability to disease of the arterial coat, which may lead to one, or an unstable nervous system, which may result in the other. On the other hand, in conditions such as colour-blindness, ichthyosis, or hæmopilia, we have probably to deal with a congenital structural peculiarity, similar in kind to malformations, such as webbed fingers, coloboma of the iris, hare-lip, etc., with this difference, that in the one case the anomalies are obvious, in the other they are not demonstrable.

It is not improbable that inborn structural peculiarities exercise a wider sway in the causation of disease than is commonly believed. In some it certainly is the sole cause, in others it is an aggravating circumstance, and in all it may not be devoid of modifying influence. Take for instance some of the rare secondary phenomena of syphilis, may it not be more probable that pemphigus is due to some peculiarity of the skin rather than the disease itself, otherwise, why would it not occur more frequently.

Heredity of subordinate characteristics.

Subordinate — as opposed to dominant — characteristics such as fecundity, longevity, and even personal idiosyncrasies are frequently transmitted. We need not dwell on the influence of heredity on the reproductive function.[3] Some families are noted for their fecundity. Thus Girou states that he was acquainted with a lady who gave birth to twenty-four children, five of whom were girls, these in turn gave birth to forty-six children in

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(3) See J. Howard Collins in "Nature," Nov. '98 on Heredity and Fertility.

all; a grand daughter, while still young, gave birth to her sixteenth child. Longevity[4] depends more on heredity than all other factors combined. We find centenarians in the tropics as in the frigid zone, among blacks as among whites, among those who lead lives of indolence and luxury, as among those who are constantly exposed to hardships and fatigue and ill provided with the necessaries of life. As Lucas says, "Everything tends to show that a long life is the result of an internal principle of vitality, which privileged individuals receive at their birth. It is so deeply imprinted in their nature as to make itself apparent in every part of their organisation." On the other hand, in many families early deaths is of such common occurrence that few members reach much beyond middle age and scarcely any attain to the psalmist's span. Again, there are families in which the hair turns prematurely grey, in others the physical vigour and intellectual faculties undergo early decay. No condition runs more strongly in families than high arterial tension, and quite independent of gout or habits, or mode of life. Is it not a cause of head-ache in school-boys, and does it not explain the family liability to apoplexy, and paralysis in later life. It is not an uncommon occurrence for the males of a family to die off before the age of sixty or sixty-five from consequences of arterial tension of one kind or another. Increased resistance in the peripheral circulation is one of the ways the tissues show they are growing old. Age is a relative term, and a French pathologist has well said, "*On a l'age de ses artères.*" Physical strength and dexterity, no less than longevity and brachybioty run in families. Galton, who has made extensive researches in the case of wrestlers and oarsmen, shows that the prizemen in both arenas belong to a small number of families, with whom strength and agility are hereditary. Everyone knows that speed on the turf is handed down.

From what precedes we see that heredity extends to external configuration, to physical peculiarities, to abnormalities and anomalies of organisation, that it affects subordinate characteristics such as fecundity, longevity, and that internal structures are not exempt from its influence provided they are innate or congenital to the parents. All this is but natural inheritance, and of this there is no dispute. The disputed portion of heredity—to what degree (if any) extrinsic functional environmental qualities—"acquired characters," as they are commonly termed—we shall consider later on.

Heredity susceptibility to disease.
a) Raci

We have next to consider whether susceptibility to disease is a matter of inheritance. It is a well-known fact that of several individuals equally exposed to an infectious disease, some will escape altogether, and of those attacked some will suffer severely, some mildly. As we look into the matter more closely, we notice that there is a racial, a family, and an individual susceptibility, and that heredity plays an important part in each. That race is a potent factor we have ample evidence, witness the varying degree of susceptibility to the bacillus anthracis among races of animals belonging to the same species. White rats are extraordinarily insusceptible compared with common rats; Algerian sheep, compared with ordinary sheep. Again, observe the varying susceptibility to the poison of chicken cholera among the different breeds of fowls. Ordinary fowls are highly susceptible, the Cochin China breed are only so to a slight extent. A similar racial susceptibility is observed in man. Negroes are far more resistant to yellow fever and malaria than the white man, and the resistance extends to persons partly of negro descent and almost in proportion to the amount of negro "blood" in the constitution. On the other hand, negroes are far more susceptible to small-pox, measles, tuberculosis than the white man. Darwin states, on the authority of Murray[5] that the different races of man are infested by different species of pediculi, and that when the parasites of one race, *v.g.*, Sandwich Islanders, strayed on the bodies of persons of a different race, *v.g.*, English sailors, they generally survived only a few days. This would seem to argue a structural peculiarity of skin in each race congenial to the well-being of a particular parasite, failing which it cannot accommodate itself to its environment.

(b) Famil

Family susceptibility is closely akin to racial. It is a matter of observation that families differ widely in susceptibilities to infective agents. Some persons from their births, show a very distinct insusceptibility to infectious disease, and will live and breathe unscathed amongst sources of infection that have laid their less fortunate compeers low. Others are specially susceptible. There are many facts that go to show that scarlet fever and diphtheria are special scourges to particular families. Numerous instances are on record of particular families being attacked by diphtheria at intervals of years, and when the members were widely separated. Thus, for instance, it is recorded that one child died of diphtheria at Paris—two years previously, a

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(4) See article in "Nature," Aug., '99, Inheritance and Longevity in man.

(5) "Descent of Man," page 169.

(c) Individual.

brother and sister died of the same disease, the former at the Cape of Good Hope, and the latter at Florence. The mother of these children was nearly carried off by the same disease in childhood. Instances of this kind are so numerous as to lead to the view that family predisposition is probably correlated with pecularities of structure.

Lastly—individual susceptibility or the constitutional factor is the result of inheritance. Whatever theory of heredity be finally adopted by scientists we may not inaptly say that the constitution of each individual is made up of an immense number of particulars of structure and function, each of which has been transmitted from parent to progeny, and all of which are potentially present in the fertilized ovum as it enters on its career of development. Among these peculiarities is susceptibility to disease, or as it is more commonly known the "constitutional factor." We all know that if several persons are equally exposed to a severe wetting. which, by chilling the general surface produces contraction of the cutaneous capillaries, some will not suffer severely in any way—one will be attacked with bronchitis or pneumonia, another by gastro-intestinal disturbance, a third by Bright's disease, a fourth by gout, or catarrh of the bile ducts and jaundice. In other words each has a *locum minoris resistentiae*; and this lesser resistance is almost always inherited if not from the immediate parent at least from some one in the ancestral line.

Laws of Heredity.

"Like tends to produce like" is true alike of the vegetable and animal worlds. The embyro plant unfolds its leaves and expands its branches after the manner of the parent tree, and so the morbid tendencies or predisposition to disease in the parent are reproduced in the offspring. Disease as such is not inherited; children are not born with rheumatism or gout. As the hereditary predisposition to disease seems to follow the same laws as the transmission of family peculiarities—we shall now take a rapid survey over the laws of heredity. Before doing so it may be well to recall a few facts from the science of biology. We know that in the simplest animal or protozoa one organism arises as a bud from its parent, and, therefore, must become a similar adult protozoa. In other cases we have organisms developing from parthogenetic ova. Thus drones have a mother but no father. In some rotifers males have never been found; in the aphides the males may be absent for years without affecting the rapid succession of generations. Apart from these exceptions every animal develops from a two-fold parentage. We have next to enquire what part of the germ cell is specially concerned in hereditary transmission Certain experiments which we need not here relate in detail have been made on the ova and sperms of the sea urchin which have an important bearing on the question. It has been found that the ovum of a sea urchin artificially deprived of its nucleus, will develop if the nucleus of the sperm be introduced in its place in the cell; not only that, but if the sperm nucleus of another species be introduced, the ovum develops into an embryo that has the special characteristics of the second species, not that of the first. This proves that the nucleus is the portion of the cell through which the transmission of specific characters takes place.

In natural conditions as opposed to artificial, such as those just related, the nucleus of the fertilised ovum is formed in half from the nucleus of the ovum, in half from the nucleus of the sperm. Each parent, then, contributes the same amount of nuclear material to the offspring, and the nuclear material is specially concerned in hereditary transmission. Experience has shown that most of the phenomena of heredity, predisposition to disease included, may be embraced under a few empirical formulæ.

These formulæ are:—

1. Direct heredity.
2. Reversional heredity or atavism.
3. Collateral or indirect heredity.

When dealing with simple organism which multiply by fission, it is true to say, "like produces like," but as we ascend the animal scale to those organisms which multiply by sexual reproduction, this statement has to be modified, and it is truer to say "like *tends* to produce like." As we ascend higher still we frequently find that even this law appears to vanish in the exceptions or to be masked by external accessory circumstances. Still, no matter how many apparent exceptions there may be, all the facts of heredity may be included under these empirical formulæ.

Direct Heredity consists in the transmission of paternal and maternal qualities to the children, and of this there are two forms (*a*) When the child takes after both parents equally. We seldom, if ever, meet with a perfect example of this; practically there is always a preponderance or prepotency of one of the parents in the children. (*b*) When the child takes after both parents, but more especially resembles one of them. Here there are two sub-forms; the preponderance may be either direct or diagonal; direct when the preponderance is from the parent to a child of the same sex, *e.g.*, from mother to daughter, diagonal when the preponderance is from a parent to a child of the opposite sex, *e.g.*, from mother to son. The last formula, which is also known as cross heredity, embraces the largest number of facts and admits of fewest exceptions. A large number of cases derived from the intermixture of races, from mental disease and history, illustrate this law and give it support. The same law explains how great men frequently have only mediocre sons. If sons frequently inherit from their mothers, and if great men often marry mediocre or inferior wives, as there is reason to believe they do, we can easily understand how their greatness becomes diluted in their progeny. At the same time it must be borne in mind that the question whether cross heredity is more frequent than heredity in the same sex loses much of its importance when we regard heredity as a cycle, and look not to one generation but to two. When we find the father transmitting to the daughter and the daughter to her son, we see the grandfather reappearing in the grandson and in a similar manner the grandmother reappearing in the granddaughter. Cross or diagonal heredity is still more common when one of the parents presents any anomaly or deformity, *e.g.*, deaf-mutism, sex-digitism, etc. These generally pass from father to daughter and from mother to son. Gall cites a case of twins of opposite sexes, the boy, like the mother, very stupid; the girl, like the father, very intelligent. Edward Lambert, the "human porcupine," already referred to, transmitted his peculiarity only to the males of his family. This was an instance of preponderance transmitted to the same sex, but instances of this kind are not so numerous.

The second formula is that of Reversional Heredity, or Atavism, where peculiarities of form and feature, as well as mental qualities and disease tendency, not present in the parent, reappear in the child, who inherits from some remote ancestor. The phenomena of atavism or reversion is quite common in the vegetable and animal worlds. In the silkworm atavism presents itself after as many as a hundred generations. In man types of features are sometimes transmitted from a remote ancestor. Thus it is recorded that Dr. Gregory, while visiting a lady of rank in England at the beginning of the last century, was struck with the resemblance between the nose of his hostess and that of the Chancellor of Scotland in the reign of Charles I. He was not surprised when he was informed that she was the great grand-daughter of the deceased Chancellor (Lucas). Reversional heredity is often manifested in mental disease

The last formula we shall refer to is Collateral or Indirect Heredity. This form exists between individuals and their ancestors in the indirect line, *i.e.*, between uncle or grand uncle and nephew and niece. In reality this is a form of atavism, because whatever resemblance holds between a nephew and an uncle holds because some common ancestor has transmitted to each. Quatrefages was acquainted with a man who bore striking resemblance to his great grand-uncle, but did not at all resemble his father or mother. Lucas mentions an instance where a man, whose brother and aunt were deaf mutes, had five children, one of whom was a deaf mute.

We have now seen that the facts of heredity may be reduced to three empiric laws: *direct* (including cross heredity and heredity to the same sex), *reversional*, and *collateral* heredity. It is not within the scope of this paper to show that this classification is correct. It will be sufficient to state that it rests on an extended induction of facts made with great care by such investigators as Darwin, Mivart, and Wallace, and such special students of heredity as Lucas, Morel, Galton, Brookes, and Ribot. Can these laws be further simplified?

Analogy of reversional heredity as "alternation of generation.

In this connection it is well to recall some facts in comparative anatomy. It is well known that among certain invertebrates—.*v.g*, salpians—what is termed alternation of generation occurs.[6] A solitary salpian produces long chains ef embyros which remain organically connected throughout their entire life. Each individual of these associated specimens produce solitary young which are very often unlike their parents, but always resemble the grand parent. The researches of the late distinguished scientist of Louvain, Van Benedin, show that in some animals the cycle is not limited to three generations, but that it extends to four or five, so that the resemblance is not that of grandfather to grandson, but that of great grandfather to great grandson. The deduction to be drawn from these facts is that when we look at heredity as it is seen in two generations, we take too narrow a view of it, whereas when we consider it as embracing a cycle of many generations

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(6) *Alternation of generation* is not to be confounded with *metamorphosis*, which takes place in tadpoles and insects. In the first place, the young of these animals that come under the former head are not only unlike their parent at first. but remain so; secondly, this young generation so dissimilar to the parent animal brings forth new creatures, which either themselves or their descendants revert to the original form of the first parent. Whereas, on the other hand, in metamorphosis the dissimilar young merge by gradual changes into the likeness of the parent animal.

we realise how far-reaching its effects may be. Although it would be a mistake to consider reversion or atavism as a form of alternate generation, still it would be useless to deny that there is a strong analogy between both phenomena. They both have this in common, that stronger resemblances exist between grandfather and grandson, grandmother and granddaughter, than between father and son, mother and daughter.

The individual never receives the whole of an ancestor's traits.

A man as he stands probably represents many generations, nor is it possible to say how far back he might trace certain traits in his person or character. The individual is the result—the arithmetic mean of three different quantities, its father, its mother, and the whole species represented by the double series of its paternal and maternal progenitors. The third datum is the unknown quantity, the x in the problem. Reversions to distant ancestors frequently occur and make the individual entirely unlike its parents. Parents are often but mere transmitters in the chain, the child deriving from an earlier ancestor.[7] An individual rarely receives the whole of an ancestor's traits. Seldom can he be said to represent any one preceding member of the family tree. Although in his person he is the union of many, yet no one of his progenitors is perfectly represented in him—his features, his eyes, his hands may separately represent those of ancestors whom he has never seen. Although general traits are transmitted and cause that likeness we notice in members of the same family, yet there may be great differences among children of the same parents in physical and mental development, in the strength and weakness of their constitutions. The differences in children of the same parents is accounted for by Weismann by the extrusion of the polar globules. The ovum in expelling the second polar globule, parts with certain hereditary tendencies, and there are reasons for believing that what is retained and what is extruded on each fertilisation varies.

Galton's conclusions as to the heritage of the offspring.

We have already seen that each parent contributes equally to the offspring; but this statement has to be modified by Galton's statistical conclusions, that the offspring inherits a fourth from each parent and a sixteenth from each grand-parent. The total heritage of the offspring is derived as follows:—The two parents between them contribute on an average one-half of each inherited faculty, each of them contributing one-quarter of it. The four grandparents contribute between them one-quarter, each of them contributing a sixteenth, and so on; the sum of the series—$\frac{1}{2}+\frac{1}{4}+\frac{1}{8}+\frac{1}{16}$ etc., being equal to 1, as it should be. It is the property of this series that each term is equal to the sum of all that follows thus:—$\frac{1}{2}=\frac{1}{4}+\frac{1}{8}+\frac{1}{16}$, etc. In a law, such as this, which deals only with average contributions, the prepotency, or subpotency of particular ancestors, and the varying prepotency of sex in respect to different qualities are presumed to be eliminated.

Prepote

This brings us to the much discussed question of prepotency. Practical breeders are quite familiar with the fact that some bulls, rams, and stallions can impress upon their progeny their own characteristic with great certainty, whereas others fail to do so. The property is an individual endowment, as of two brother stallions, one may possess it and impress all its "gets" with its own traits, while the other is incapable of influencing its progeny, even in a minor degree. Although by no means the same as an aptitude for procreation, still it is frequently associated with it. Prepotency may be manifested in features, endowments, organs, or parts of organs. Thus, a white cat possessing a few black hairs on her forehead, bore kittens to a tom which was entirely black. All the kittens were black except a white patch on the forehead; here the tom was prepotent. Prepotency may be possessed by individuals of either sex. Hutchinson has well said, referring to the mother's prepotency, "a son may have inherited a breast pin from his father, while the bulk of his fortune has come to him from his mother."

A pure race, kept for many generations unmixed, is prepotent as regards one of mixed descent Thus, if either a Leicester ram, a mixed New Kent, or a Southdown that is not pure, be put to a pure ewe of any French race, very little English character is impressed on the offspring, never less than when the ewe is a pure merino. The merino has been kept for so many generations, that its prepotency is always manifest. Thus, there is very little difference between a Leicester-merino, a Kent-merino, and Southdown-merino, the merino being an old and pure race is always prepotent. Hence, the breeder, anxious to have an Anglo-French stock impressed with the English character, since he cannot increase the purity and antiquity of the rams, has to diminish the purity and antiquity of the ewes, and he accomplishes his purpose by selecting ewes, combining in themselves, four races, *v.g.*, a Berry-Toulogne-Tolouse-merino.

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(7) The Romans were not ignorant of this doctrine, for they carried the marks of all their ancestors upon public occasions. Thus in "Lucretius," vol. I, page 217, it is stated:—"Sometimes, too, the children may spring up like their grandfathers, because parents often keep concealed in their bodies many first beginnings mixed in many ways, which, first proceeding from the original stock, one father hands down to the next father . . . . and repeats not only the features, but the voices and hair of forefathers."

he relative nfluence of he two exes on the ffspring.

We have now to consider what qualities are transmitted by the father, what by the mother. Have we any evidence that either parent influences transmission in a manner special to itself. The relative influence of the two parents in determining peculiarities in the offspring has been often discussed, and very different conclusions have been arrived at by different observers. In fact we might say, *quot homines tot sententæ.* Some practical breeders in stock see a law under which the female contributes the digestive and vascular systems, and under which the male determines the general form. Others would have the mothers contributing the head, forequarters, and nervous system, and the father the back, loins, hindquarters, skin and size. Brooks in his work, "The Law of Heredity," holds that there are two factors in transmission, namely, heredity and variation, that heredity is the special function of the mother, and that the father is the cause of variation, hence the action upon the male parent of unnatural or changed conditions result in the variability of the child. This is well shown he says by crossing the hybrid with the pure species, for when the male hybrid is crossed with a pure female the offspring are much more variable than those born of a hybrid mother with a pure father. The problem at best is a complicated one.

uxley on eciprocal rosses.

Huxley, from observations on reciprocal crosses argues a prepotency in the male in external characteristics. Reciprocal crosses between the horse and the ass have been reared for domestic purposes for ages, and he gives the following interesting account of the result:—"The offspring of the ass and the horse is what is called a mule, and, on the other hand, the offspring of the stallion and the she-ass is what is called a hinney. It is a rare thing in this country to see a hinney. I never saw one myself, but they have been carefully studied. Now the curious thing is this, that, although you have the same elements in the experiment in each case, the offspring is entirely different in character, according as the male influence comes from the horse or the ass. When the ass is used as the male, as in the case of the mule, you find the head is like that of the ass, that the ears are long, the tail is tufted at the end, the feet are small, and the voice is an unmistakeable bray; but, on the other hand, the barrel of the body and the cut of the neck are much like those of the mare. Then if you look at the hinney, the result of the union of the stallion and the she-ass, you find it is the horse which has the predominance; that the head is more like that of the horse, the ears are shorter, the legs coarser, and the type is altogether altered, while the voice, instead of being a bray, is the ordinary neigh of the horse. Here, you see, is a most curious thing. You take exactly the same elements, ass and horse, but you combine the sexes in a different manner, and the result is modified accordingly."

Mr. Huxley, then, considers the mule a modified ass and the hinney a modified horse, prepotency in each case being in the male.

No: on preponde ance of or the ot sex.

But on the other hand, it is well to recall that those in charge of the American plantations where mule-breeding is carried on, on a large scale, find it often impossible to distinguish between a mule and a hinney. There are some mules that resemble their mother's coat, tail and mane, and there are others that no less closely resemble corresponding portions of their sire. So, that, though the facts of mule-breeding forcibly illustrate the laws of prepotency, they do not establish any constant preponderance of one or the other sex. There may be a prepontency of one parent, but not to such an extent that the influence of the other is suppressed. If it be true that the mule is a modified ass, it is equally true that it is a modified horse. While we admit there *may* be a prepotency of the male parent in the offspring, the arguments derived from reciprocal crosses are far from conclusive that that there *is*.

Professor Pearson, in an interesting contribution to the Royal Society of London, in April last, shows that the offspring *tends* to take the character of one parent to the exclusion of the other, and more frequently follows the male than female ancestors, in other words a prepotency of the male parent is often manifested. He has, by mathematical analysis, as for as the nature of the subject would allow, investigated the inheritance of colour in horses and of eye-colour in man, and finds that in both the results are not such as we would expect from the blending of the characters of ancestors in the direct line. The persistence of family likeness, handed down for several generations on the male side, in spite of the introductions of various strains upon the female side, seems to bear out his conclusions, which have an obvious bearing on the inheritance of disease. Again, Dr. Savage is strongly of opinion that where a strong taint of insanity exists—no progressive dilution of the taint by intermarriage can be traced in successive generations; but that the individual either escapes altogether, or experiences the full weight of the neurosis in some form or other.

But though prepotency may be exerted, it is never possible, whatever breeders may say to the contrary, to assert anything as to special qualities that are transmitted by either sex. An individual may inherit a preponderance of the qualities of either of his two parents, of one of his four grandparents, or of any one of his eight grandparents, but except when disturbed by prepotency, latency, atavism, or other individual inequality, the two sexes share in equal proportion in the endowment of the offspring. It would seem, though, that the size of the offspring depends more on the mother than the father. The mule is always a larger animal than the hinney. This is what we would expect when we reflect that the mare has a far larger blood-supply than the she-ass, and that the fœtus depends on its mother for nutrition. The mother not only supplies the germ but she also exclusively nourishes the offspring during its intra-uterine existence, and hence it is that some authorities consider that her influence exceeds that of the father's in the production of such diseases as gout and rickets.

eredity of ease.

We will now take a rapid survey over morbid conditions, and see how they are affected by heredity. In some diseases the evidence may not be so strong as in others, and in making an attempt to show that pathological processes no less than physiological are subject to heredity, some allowance must be made if I am unable to present cogent arguments in every case; as the entire subject is practically new; at all events the biological aspects of heredity have been generally ignored, when reference is made to it in current literature. This would seem the most natural place to discuss the vexed question of the inheritance of acquirements, but it will help to simplify matters if we postpone its consideration for the present.

It may be regarded as an axiom that the more the disease is constitutional as opposed to local, the greater will be the influence of heredity in its transmission. Nor is it necessary that the condition transmitted should be exactly alike or assume the identical forms in the *partus* as in the *parens*. Metamorphosis in transmission frequently occurs owing to the law of variability to which every individual is subject The predisposition may be diluted or even neutralised by circumstances, such as marriage into a prepotent stock, or by latency, a whole generation being passed over when the inherited influence appears as potently as ever in the next. Again some members of a generation may be affected, others spared owing to the preponderance of one parent being transmitted to certain members. Lastly we have "heredity occurring at corresponding periods" which may be explained on the hypothesis of latent characteristics contained in the individual and which come to light only under definite conditions; the time corresponding to the time in the progenitor.

Diseases of the nervous system.
(a) Mental disease.

Discarding all accepted lists of hereditary disease I prefer passing in rapid review the influence of heredity on the principal diseases in relation to the organic systems of which the body consists, and naturally we begin with the nervous system. Let us then take mental disease or insanity. Is it transmissible? On the authority of Esquirol it is the most hereditary of all diseases. Prosper Lucas considers heredity as a possible source of all cases. So many facts bearing on the heredity of insanity have been collected, that it is a case of *embarass-de-richesse.* All the male descendants of a noble family of Hamburgh, remarkable for generations for their great military talents, went mad at the age of forty; only one remained an officer, and he was by decree of the senate forbidden to marry; the critical period came, and he also went mad. In Connecticut Asylum, there was a lunatic who was the eleventh in his family. Lucas mentions a lady who was the eighth. Esquirol knew a family in which the father, son, and grandson committed suicide at the age of fifty. Maudsley, referring to the heredity of suicide, states: "Public feeling is much shocked when a child of eight or nine years of age commits suicide, as if something very unnatural had happened. . . . . But if the child's family history be inquired into, it will usually be found that a line of suicide runs through it."

It is not necessary to run down the list of mental diseases known to the alienist—they are all under the influence of heredity; but we may ask, what is the relative proportion of hereditary cases? It is not as easy as it might appear at first sight to give an answer here, for nowhere in diseased conditions are the laws of prepotency, latency, atavism better illustrated than in mental disease.

Children may inherit from parents who are not themselves insane, and this may occur in two ways—insanity may have existed in the grandparents, and after remaining latent in the next generation may reappear in the grandchildren, or there may be transformation in transmission, that is to say, though the parents may not be insane, they may have been the subjects of neuroses, wanting in mental stability, alcoholics, epileptics, or hypochondriacs; in any case they may be transmitters in the chain, not of the neurosis, but of insanity, to the progeny. Hence the difficulty of getting a correct history of the mental state of the parents. But according to high authority we shall not be far wrong if we say that hereditary insanity represents from one-fourth to one-third of the total number. In the latest official report of the Commissioners of Lunacy we have a table giving the percentage of causes of insanity in patients under observation for the five years 1893-1897 inclusive. Hereditary influence is attributed as a cause in 20·4 per cent. of the males and 25·9 of females. These figures are well known to be far below the real proportion, and in that table of the report where the causes are reviewed in the two great groups of private and pauper patients, the percentages are found to be higher in the former, largely, no doubt, on account of the greater facilities for obtaining a family history in that class. But even allowing that these figures are below the real number, still we have the fact that heredity gives the largest percentage of any of the causes mentioned in the report.

Alcohol. The next case of morbid heredity we shall consider is alcoholism. The transmission of the alcoholic habit has been recognised from the earliest times. Thus Plutarch wrote :—"Ebrii gignunt ebrios," and Aristotle taught that "drunken women brought forth children like unto themselves." Nor is it always the passion for drink that is transmitted as such, for in the descent the neurosis undergoes transformation, and alcoholism in the parent becomes insanity in the offspring. Many interesting facts bearing on the heredity of alcoholism have been collected by Magnus Huss, Morel, and Trelat. Space will not allow citing many instances from those authorities; we must content ourselves with one. Morel relates the history of a family living in the Vosges, in which the great grandfather was a drunkard, and eventually died from the effects of intoxication; the grandfather, a drunkard, also died a maniac. The father, though more sober than the grandfather, was subject to hypochondria, and had homicidal tendencies; the son was stupid and idiotic. Thus we have in the first generation alcoholic excess, in the second hereditary dipsomania, in the third hypochondriasis, in the fourth idiocy. Absence of intellect or idiocy frequently follows alcoholic excess in the parent. Thus Dr. Howe, in his report on the state of Idiocy in Massachusetts, states that the habits of one or both parents of 300 idiots having been learned, 145 of these children, or nearly one-half, were found to be the progeny of habitual drunkards. The statistics of Mr. Tredgold relating to 40 cases of congenital imbecility, although not numerous are valuable because reliable, and in the course of time, when he has completed the investigations of this question in all the London County asylums as he has done in Claybury, they will be still more valuable. As far as they go they show that the most important cause of congenital imbecility is an inherited neuropathic taint of which alcohol is the principal contributing factor. In fact, we may state, that all observations so far made by skilled investigation, go to prove that epilepsy, insanity, imbecility, idiocy, mental weakness, loss of moral control and will power are frequently the inheritance of children born of chronic drunkards.

The influence of heredity in the production of inebriety evokes considerable interest at the present time, nor is the interest confined to temperance reformers. All are agreed that where a special tendency to inebriety is innate in the parents, that tendency is transmitted to the offspring; but there is considerable difference of opinion as to the transmissibility of the habit when it is acquired by the parent, and hence it is that the society for the study of inebriety, has quite recently appointed a special committee in London to obtain evidence bearing upon the question, as to whether a parent, who, himself, inherits no special tendency to inebriety, can, as a result of mere intemperate habits entail upon his children a "potential inebriety." Those who contend that mere intemperate habits are not transmitted, and that the innate capacity for enjoying alcohol is the only part of the alcoholic diathesis, which is hereditary, appeal not only to the special arguments that favour the non-transmissibility of "acquired characters," but also to the history of nations as confirmation of their opinions. They argue thus: Alcohol is a source of elimination to those who have the greatest capacity for enjoying it. From this it follows that those nations that have known, and used alcohol longest, ought to be the most temperate; the heavy drinkers, owing to indulgence of their inborn capacity, are gradually eliminated, and the race is continued by those with a poor capacity for enjoying alcohol, and a nation of moderate drinkers is by a process of natural selection gradually evolved. And there is no doubt but that there is considerable weight in this line of reasoning. Savage nations when first introduced to European alcoholic stimulants drink immoderately and are rapidly eliminated unless they have had some previous experience of them. The aborigines of North and South America, Australia, Polynesia, Africa, and Greenland are prone to excessive indulgence, and perish in its presence. Whereas people who have lived for thousands of years with an abundant supply of alcohol are pre-eminently temperate, such as the Greeks, Italians, South Frenchmen, and Spaniards. Any more detailed reference to the heredity of inebriety would carry us too far afield

(c) "Paroxysmal neuroses"

It is a well established fact that the neuropathic disposition, meaning by the term, an unstable, nervous organisation is frequently transmitted. It is not a tendency to any one particular disease so much as a vulnerability of the nervous system, as a whole, a neurotic habit that is handed down. Erb describes it as "that unfortunate condition which forms the inheritance of so many families in which the most diverse forms of neurosis are, so to speak, innate, and propagate themselves from one generation to another." To it many forms of neuralgia owe their origin, and it is a factor of importance in the ætiology of chorea, epilepsy, hysteria, and hypochondriasis. Any of the paroxysmal neuroses, migraine, vertigo, epilepsy may undergo metamorphosis in the same patient as time goes on; particularly so in the case of epilepsy. It may be replaced by vertigo mania, or other forms of nerve disturbance. Each of these neuroses is liable to run in families—thus of 83 cases of neuralgia investigated by Anstie with regard to heredity he found 71 in which a family predisposition existed; of 208 cases of hysteria, Amann has proved with certainty a hereditary tendency 165 times. Briquet has shown also that a large percentage of the female descendants of the hysterical suffer in their turn from hysteria; of 110 cases of epilepsy Boucher found 31 cases hereditary. Gowers states that an inherited tendency is traceable in rather more than a third of the cases of epilepsy and that there is a family history of epilepsy in two-thirds of the inherited cases, of insanity in one-third, of both in a tenth. As illustrating transformation in transmission, the inherited neurosis may show itself in different forms in different members of the same family, one child may be epileptic, another subject to migraine, a third hysterical. As Professor Nothnagel of Jena, says:—"The proposition may be enunciated that any neurosis in the parents may plant in the children the germ which may develop into epilepsy. I have observed cases where the mother suffered for many years from pronounced migraine, and with this exception there was absolutely nothing else in the way of a family history to be found, and yet a daughter was hysterical and a son epileptic." When one reflects on the double relation of chorea to rheumatism on the one hand, and to nervous disease on the other, we are prepared to expect that it runs in families. Admitting with Osler that very probably the cause of chorea will be found to be a poison allied to, but not the same as, that of rheumatism, and accepting the statement of Maclagan that in rheumatism a peculiar condition of the tissue is handed down rendering them a fitting *nidus* for the propagation of the rheumatic poison, and lastly, bearing in mind the close association of the two conditions, we are prepared to expect if one is hereditary so is the other.

Statistics bearing on the constancy of association between chorea and rheumatism are usually inadequate, since they generally take account only of well-marked articular rheumatism. They omit the many slight cases of joint and tendon affections commonly called "growing pains," cases of erythema and tonsillitis. In the rheumatism of early life the joint affection is at its minimum. Other phases in the rheumatic series, such as endocarditis, subcutaneous nodules are in evidence, and therefore, instead of 32, the percentage based on the joint affection, it would probably be nearer the truth to double that figure, and say that 64 per cent of chorea cases are rheumatic.

There is another hereditary factor in chorea which cannot be ignored—the neuropathic; a special susceptibility to irritation, a marked mobility of the nervous system is frequently handed down. A neurotic family history is present in no less than 46 per cent., and in some cases is very striking. For example, in one instance three sisters suffered from chorea, in another the mother had epilepsy and a sister chorea; in a third two sisters of an epileptic girl had chorea. Many examples of these family tendencies are mentioned by Dr. Angel Money in Brain, 1882. Dr. Huntingdon, of Long Island, whose father and grandfather were physicians, has described a remarkable form of hereditary chorea affecting many generations. In these cases the chorea began between the 20th and 40th year of life, attacked both sexes alike, usually led to mental disease and finally to death

(d) "F Diseas."

Having now considered the hereditary element in insanity, alcoholism, and the paroxysmal neuroses, space will not allow us to refer in detail to other nervous ailments which are subject to heredity, such as the myopathic form of progressive muscular atrophy, pseudo-hypertrophic paralysis, Friedreich's ataxia, Thomsen's disease, etc. If we adopt the distinction insisted on by Adams between a "family disease" and "hereditary disease," it would perhaps be more correct to call the three diseases last mentioned, family diseases. A "family disease," according to Adams, is confined to a single generation, spreads laterally between brothers and sisters, and cousins, but does not extend vertically, or affect two or three successive generations. Family disease would seem to be due to chance meeting in two parents of peculiar proclivities. Cases of Friedreich's ataxia have appeared in four families, the members of which were second cousins to each other, and yet no case had occurred in the previous three generations.

That the three diseases mentioned occur in families and yet are not usually transmissible, is explained partly because those subject to them rarely marry since the diseases are already far advanced before the patients reach a marriageable age, and partly because they have undergone metamorphosis in transmission. Although neither of the parents, nor probably any near relative has suffered precisely from the same malady, yet there is generally evidence of the liability of some nervous derangement or disorder in the previous generation. Thus the relatives of patients affected with Friedreich's ataxia and Thomsen's disease, have in many instances been insane, or afflicted with other forms of nervous disease. When successive cases do occur, these diseases are almost always passed on through the female line, that is to say, the male children of the healthy brothers usually escape, while the male children of the healthy sisters are often affected.

Other examples of "family disease" are supplied by Kaposi's disease and retinitis pigmentosa. Facts are not wanting that go to show that "family diseases" are the consequences of arrest of development, just as the malformations hare-lip, cleft palate, coloboma of the iris, and webbed fingers; with this difference, that in the one case the defects are obvious; in the other, the inborn structural peculiarities are latent, or dependent on the supervening of some exciting post-natal cause. The developmental defect in Friedreich's ataxia constitutes the background of the picture. It is as if portions of the spinal cord were incapable of responding to demands of growth, and underwent degenerative changes. The evidence may not be so conclusive in the case of pseudo-hypertrophic paralysis; still Von Babes' observations seem to show that the end plates and fine terminations of the motor nerves in the muscles are imperfectly developed. It must be borne in mind that the proof for or against the pure myopathic nature of the muscular atrophy cannot at present be furnished by histological research. There are suggestive arguments that there may be developmental defects in the neuro-motor apparatus in Thomsen's disease, not merely in the muscles, but in the spinal cord. It certainly seems plausible that there is some latent congenital structural peculiarity in the skin in Kaposi's disease, and in the retina in retinitis pigmentosa.

Disease o
the Resp
tory Org

In considering the hereditary elements in diseases of the respiratory system, it is not contended that the diseases of the parents are handed down as entities to the children, rather that the inborn peculiarities of the one are frequently reproduced in a modified form in the other, and that such bequests in many cases occasion a predisposition to parental morbid process in the child. Of all diseases in the respiratory organs none is more widespread in its distribution, or more dreadful in its effects than pulmonary phthisis. Whole families, and even races are decimated by it Few nowadays agree with Baumgarten in the direct transmission from parent to offspring of the tubercle bacillus, or accept his theory of latency; almost all hold that, with rare exceptions, it is not tuberculosis that comes into the world with successive children of the same family, but an absence of tissue resistance, an aptitude to contract tuberculosis should external conditions favour. It is true, strict hereditarians have for years danced enthusiastically over Johne's calf, nevertheless, direct transmission is not heredity, congential infection is not inheritance. Tuberculosis is never inherited, it is always acquired. The tubercle bacillus is and for ever remains a foreign element just as much as small shot fired through the body of the parent into the tissues of the embryo Although all are tuberculizable still whether the seed develops depends on the character of the tissue soil; the proclivity is inherited; the infection comes from without—even when congenital. What is transmitted is not the disease but a predisposition to the disease or an incapacity to resist the tubercle bacillus. Everyone admits that the cause of the disease is the tubercle bacillus, and all treatment is planned with a view to be hostile to its well being, but may we not pause and ask, has not the pendulum of professional thought swung too far under the influence of the teaching of bacteriology, and are we not apt to attach too much importance to the bacillus and too little to the previous condition of the patient, too little to his hereditary tendencies, too little to his state of health prior to infection. We all know that the busy housewife, anxious to get rid of moulds would loose her labour if she spent all her energies in rubbing them away and took no precautions against the dampness of the habitation which favours their return. May it not be just as irrational and hopeless on the part of the medical man to cure tuberculosis by trying to get rid of the present crop of bacilli. The heredity of tuberculosis is no proof of the transmissibility of an acquired trait. The feeble tissue organisation, the narrow chest, the organs ill adapted to resist infection, are all inborn germinal traits, and as such are transmissible. But the acquirement—the infection and disease—comes later. Like the parent, the child acquires them for himself.

Although it is not true to say that bronchitis is inherited as such, still, it will scarcely be denied that parents may transmit to their offspring a constitution lacking in resisting power possessed by the healthy organism. That this lack of resisting power may specially affect certain tissue such as the mucous membrane of the respiratory tract. In this manner a proclivity to catarrhal inflammation may be inherited, and clinical experience justifies such a conclusion The heredity of emphysema has been investigated by various observers with various results. Some discover a hereditary tendency in only twelve per cent of cases (Lebert), others in as many as sixty per cent (Fuller, Jackson) in the adult, and 100 per cent. in the case of children. Probably it would not be far from correct to say that though emphysema is not absolutely hereditary in any case, still that in certain individuals the tone of the elastic tissue may be below par, and may allow of the occurrence of permanent dilation of the pulmonary alveoli, under a tension altogether inadequate to produce such a result in a person of normal fibre. Heredity plays a certain part in asthma. In some cases the family history shows a tendency to pulmonary disease, in other cases towards neuroses, such as hysteria, migraine. According to Salter, the disease is hereditary in 37 per cent. of cases; but in many cases in which there is no evidence of its occurrence in preceding generations, it attacks several brothers and sisters in a family. This kind of connection we have already noticed under the heading of "family disease."

Heart and Vascular System.

As the hereditary element in disease of the heart is practically that of rheumatism and gout, we now proceed to consider the important part heredity plays in these two affections. It will be generally admitted that the predisposition to acute rheumatism is markedly hereditary. What is transmitted is not the disease but a tendency to it; a peculiar condition of the fibrous and serous tissues which renders them a congenial habitat, a fitting *nidus* for the propagation of the rheumatic poison whatever that may be, whether a micro-organism or not. The estimated extent of the transmission varies according to the care bestowed on the enquiry, and on the factors admitted as evidence of rheumatism in relatives. Garrod traced a hereditary predisposition in a fourth of his patients, Fuller in 27 per cent, Chomel in 33 per cent, Goodhart in the case of children found satisfactory evidence of rheumatic inheritance in 57 per cent. Steiner relates the case of a lady who suffered from acute rheumatism with heart complications; of her twelve children eleven had the disease before they reached the age of twenty. It is said that rheumatic fever in the parent predisposes not only to the same disease in the offspring, but to chronic alterations in the cardiac valves without any preceding acute attack, otherwise, how account for the many cases of valvular disease where the patient has had no acute rheumatism, or gout. Some light is thrown on these cases by recalling the more salient features of the rheumatic state as seen in childhood. We generally associate the idea of acute rheumatism with an inflammation of the joints, since that is the most frequent phase seen in the adult; if an endocarditis supervenes it is generally regarded as a complication. The disease as seen in children, leads to a broader conception. Other phases of the disease, slightly marked or even absent in the adult, become manifest, such as tonsillitis, erythema, subcutaneous nodules, chorea, etc. The joint tissues are less susceptible, while the fibrous tissue of the endocardium—the visceral joint—is more so than in the adult; the statistics of the C I.C. of the B.M.A. gives 46 per cent. of endocarditis in the rheumatism of the adult, and 72 per cent. in the case of children. Endocarditis in childhood is not a mere complication, but a direct phase of the disease. It may occur without any arthritis, or it may be associated with a stiff neck, an erythema, or a tonsillitis, or it may arise without any other known rheumatic indication. Many of the rheumatic manifestations of early life disappear after a short stay, endocarditis included. In other cases, though, about 25 per cent. according to Sibson, the endocarditis passes on to chronic valvular disease. Considering, then, how insidious rheumatism is in childhood, how slight may be the articular affection, how easily and how often the only manifestation of the condition—a stiff neck, an erythema, or a tonsilitis—escapes notice altogether, have we not a satisfactory explanation of many cases of valvular disease of "unexplained origin." Understood in the sense *via* endocarditis in childhood, it is true, then, to state that rheumatic parents frequently transmit to their children *that* which results in slow thickening of the heart valves. According to Hayden, the relative frequency in which the mitral and aortic valves are affected are as 4 : 1, the mitral alone being 52 per cent., in combination with other valves 85 per cent.; the aortic alone 13 per cent., in combination with other valves 43 per cent.

In valvular lesions that can be traced to an attack of acute endocarditis there is a favourable element as compared with those which arise from degenerative changes from whatever cause, inasmuch as the former are for the most part stationary, whereas the latter are inevitably progressive.

Mitral valve lesions have commonly a rheumatic origin, and occur mostly early in life. On the other hand it is generally the aortic valves that are effected in chronic endocarditis. The chief causes of this condition are gout, alcoholism, interstitial nephritis and certain occupations, but one factor common to all is increased pressure within the aorta. The occupations that set up irritative processes, and favour degenerative changes in the valves, do not concern us here any more than that they serve to show how the other causes act. We are here concerned with heredity, and all the causes referred to, except occupation, are markedly hereditary. It is admitted on all hands that gout occurs in consequence of an inherited predisposition. Scudamore found that 60 per cent. of gouty persons came from gouty stock, Gardner, over 80 per cent., Garrod, 75 per cent., and Braun, out of sixty-five patients, did not find one whose parents, or grandparents had not suffered from the disease. Garrod had a patient, in whose family, for upwards of *four centuries*, the eldest son had invariably been inflicted with gout *when* he came into possession of the family estate.

To ask how heredity acts in gout is to raise a disputed problem in pathology, what is the primary cause of gout? The immediate cause is generally admitted to be mechanical injury due to the precipitation of sodium biurate in the tissue from an excess of quadri-urate in the blood. The quadri-urate, circulating in a medium rich in sodium carbonate, takes up an additional atom of base, and is thereby transformed into the biurate. The excess of quadri-urate in the blood is due either to excessive production or deficient elimination. When the liver fails in the practically complete conversion of nitrogenised matter into soluble urea, it falls back or reverts to the formation of the earlier form, uric acid, and thus gout might be said to be a sort of hepatic reversion. According to this view, the man with a gouty tendency is the inheritor of a reptilian or an avian liver. Murchison considered the hereditary factor in gout was insufficiency of the liver. According to him, in some the liver seems only just capable of performing its functions under the most favourable conditions, and breaks down under adverse circumstances of diet or climate. This innate weakness of the liver is often inherited. Gout often originates in hepatic derangement, and the liver is always readily disordered in persons who inherit a tendency to gout. Luff holds that it is the liability to functional affection of the kidneys that is transmitted in gout. This view receives some support from the fact that in leucocythæmia the excretion of uric acid may rise to six times the normal amount, yet no signs of gout appear, the reason being that the kidneys remain sound. It is this functional affection of the kidneys, he says, that interferes with the proper excretion of uric acid, and he considers Murchison's view may be rendered intelligible by regarding the liver as the seat of production of the antecedents of uric acid (urea and glycocine), their final conjugation taking place in kidneys. Probably Hutchinson is not far wrong when he says he who inherits a predisposition to gout inherits peculiarities of stomach and kidneys, and of all the organs that are concerned in the assimilation of food and depuration of the blood.[8]

It is well to bear in mind that the influence of gout on valvular disease is not as was formerly thought, that the gouty poison acts as irritant on the endocardium and sets up inflammation. It acts in the same manner as any other cause producing high tension. The high arterial tension habitually present in gout

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(8) Gout is often cited as an example of the transmission of an acquirement. Thus Herbert Spencer, in his *Principles of Biology*, vol. I., p. 250, states:—"But the clearest proofs that structural alterations caused by alteration of function are inherited occur when the alterations are morbid. Certain modes of living engender gout, and gout is transmissible." It is true certain modes of life tend to engender gout in those predisposed to it. But gout as such is certainly not transmissible. The offspring of a gouty parent are not born with the structural alterations caused by gout reproduced in them, nor unless they acquire the disease do they reproduce them in after life. What is transmitted is the inborn tendency to acquire it anew should external conditions favour. In the absence of these conditions, the tendency may never be able to make itself manifest, *e.g.*, if a person lead an active life, and live on frugal fare, or at least on a diet based on facts such as these, that, whereas the mineral constituents of meat exercise a marked effect in diminishing, the mineral constituents of vegetables exercise a marked power in increasing the solubility of a gouty deposit.

exercise a continuous strain on the cardiac valves. This strain continues by night as well as by day, in the intervals of work as well as during effort, sets up a chronic irritative process in the valves, and favours degenerative changes in their structure. Other causes producing high arterial tension are also hereditary. Thus some very remarkable instances showing the tendency to hereditary transmission of chronic interstitial nephritis have been brought forward by many observers. Space will allow us to refer only to one or two cases. Dr. Dickinson gives an account of eighteen cases occurring within three generations in one family, and there was every reason to believe that the disease had existed in the family for some generations before. There is also a case recorded by Ralfe where a father and five sons all died of cerebral hæmorrhage following interstitial nephritis. But independent of gout and interstitial nephritis high arterial tension runs in families, and explains a family tendency to heart disease.

The influence of Heredity on the vessels.

This brings us to the influence of heredity on the vessels. It is well known that diffuse arterial change of a degenerative nature occurs prematurely in certain comparatively young persons, and this tendency is frequently inherited. As Ostler says, "Entire families sometimes show this tendency to early arteriosclerosis, a tendency which cannot be explained in any other way than that in the make up of the machine bad material was used for the tubing." Along the pathway of such arteries death frequently marches towards one or the other of three breaches in the citadel of life—the apoplectic brain, the dilated heart, or the contracted kidney. The most common and the most serious effect is cerebral hæmorrhage from rupture of the small arteries that traverse the white substance on their way to the central grey masses. There can be no doubt that the degenerative changes in the cerebral vessels, whether of the nature of miliary aneurisms (Bouchard), or of atheromatous deposit, the "rotten vessels" of Chepmell are very frequently transmitted. As Gower says the influence of heredity is shown not only by the frequency of the occurrence of cerebral hæmorrhage in some families, but by the entire freedom of other families through many long-lived generations. Nor is it in the brain alone that this hereditary tendency makes itself manifest. In such families the aorta, where the greatest strain is experienced becomes atheromatous and dilated. This condition extends to the aortic orifice, and a form of regurgitation arises. Another effect of aortic atheroma is the narrowing of the orifice of the coronary arteries, and this is a common cause of fatty degeneration. So that we might say the heart and vessels are engaged in a work of mutual destruction as shown by cerebral hæmorrhage on the one hand or valvular or structural disease of the heart on the other.

A varicose condition of the veins is hereditary. Though the common view of varix is that it is the result of over distention of the vein, yet there is reason to believe that the condition is more closely allied to an overgrowth of the vein. Witness the satisfactory result following excision of varicose veins, the inability to stand or to undergo fatigue is completely removed. The fact that there is no fresh development, nor any trouble from obstruction to the venous return shows that varicosity is not simply the effect of over-distention. Over-distention is one factor, but there must be some weakness in the vein wall. Over-distention reveals this weakness though it does not necessarily induce it. There is reason to believe that this weakness is frequently inherited, as it is not uncommon for every member of the same family to be affected and that for two or three generations. The same vein, or even the same part of the vein may be varicose in the different members. It is a mistake to consider varicosity as due to degenerative changes, or that it occurs when the vessels are becoming worn out, rather does it develop when the organism is reaching maturity, generally between the ages of puberty and full manhood. May it not be that it exists potentially from birth, that some excess or defect of development lies in the background of the picture, and that this excess or defect is handed down from parent to offspring. Varicose veins are sometimes two or three times as long as a healthy vein, and may not the excess of length be at the expense of the strength of the vessel wall. Considering that no similar disease occurs in quadrupeds, and that in man it is far more frequent in the lower limbs than elsewhere, may it not be that the erect position assumed by man throws a special strain on these veins, and prevents them reaching a stage of development they might acquire in quadrupedal progression. The cognate affections, varicocele and hæmorrhoids, lend support to and illustrate this plausible theory, and they too are markedly under the influence of heredity. Bodenhamer knew of a family in which the father and five children had hæmorrhoids. Larroque saw a family consisting of nine persons, all of whom, both men and women. suffered from piles. The frequency of the varicocele on the left side in the adult, coupled with the fact that a section of the cord of the full-time fœtus shows the united lumina of the veins of the left side to be considerably in excess of a similar section in the right side tends to support the opinion that varicocele is of congenital origin.

The heredity of hæmopilia has been already referred to in the earlier portion of this paper.

(*To be continued.*)

BOOKS RECEIVED.

The following books have been sent in for review, and will be noticed in our next issue :—

Case Taking Book. By the late L. E. F. Neill, B.A., Ch.M. Syd. Angus and Robertson. Price, 6s.

A Manual of Surgery for Students and Practitioners. By Wm. Rose, M.B., B.S. Lond., F.R.C.S., Professor of Clinical Surgery in King's College, London, and Senior Surgeon to King's College Hospital, etc., and Albert Carless, M.S. Lond., F.R.C.S., Surgeon to King's College Hospital, and teacher of Operative Surgery in King's College, London, etc. Third edition. London : Bailli Tindall and Cox. Sydney : L. Bruck. 1900.

Medical Electricity. A Practical Handbook for Students and Practitioners. By H. Lewis Jones, M.A., M.D., Fellow of the Royal College of Physicians ; Medical Officer in Charge of the Electrical Department in St. Bartholomew's Hospital ; with illustrations. London : H. K. Lewis. 1900. Price, 10s. 6d.

A Manual of Medicine. Edited by W. H. Allchin, M.D. Lond., F.R.C.P., F.R.S. Edin., Senior Physician and Lecturer on Clinical Medicine, Westminster Hospital ; Examiner in Medicine, University of London, and to the Medical Department of the Royal Navy. London : Macmillan and Co., Ltd. 1900. Price 7s. 6d.

Cancer of the Uterus : Its Pathology, Symptomatology, Diagnosis and Treatment ; also the Pathology of Diseases of the Endometrium. By Thos. S. Cullen, M.B. (Toronto), Associate Professor of Gynæcology in the Johns-Hopkins University ; with eleven lithographic plates and over 300 coloured and black illustrations in the text by Max Brödel and Hermann Becker. New York : D. Appleton and Co. 1900.

(For Reviews see page 124.)

Dr. Clubbe's Paper on Abdominal Surgery. —We are informed by the editors of "Sydney University Medical Journal," that the paper by Dr. Clubbe on Abdominal Surgery, which appeared in our last issue had been previously published in their journal. We regret that due acknowledgment had not been made at the time of publishing. The contribution published by us had been revised and modified by Dr. Clubbe.

NEW SOUTH WALES MEDICAL UNION.

The Annual Meeting will be held on Wednesday, 27th inst. The Hon. Treasurer's Statement which has been issued to the members shows a balance at the close of the financial year of £1,560. Every member of the profession in general practice in New South Wales should join the union.

PROCEEDINGS OF BRANCHES.

QUEENSLAND BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

A General Meeting of the branch was held on Friday, March 1st, the following members being present : - Dr. Taylor (President), Drs. Francis, Robertson, Hopkins, Hardie, Comyn, Hirschfeld, Lockhart-Gibson, Sutton, Wield, Lightoller, and Brockway.

Dr. Wield related his experience of three cases of belladonna poisoning which had occurred recently in his practice. In the first, a child of five years, the usual symptoms of an overdose of the drug, followed upon the administration of one dose of five minims of the tincture. The second case was that of a man who suffered from dilatation of pupils to the extent of interfering with his vision after taking half-a-grain of the extract as contained in Sir Andrew Clarke's pill. The third, a woman, showed signs of poisoning after a single dose of less than four minims of the tincture.

Drs. Taylor, Lockhart-Gibson, and Wilton Love were elected trustees of the property of the branch.

Drs. Taylor, Marks, Lockhart-Gibson, P. Bancroft, Connolly, and Brockway were appointed a parliamentary sub-committee.

Dr. Turner was appointed representative of the branch in England for 1901.

Drs. Sutton and Kerr-Scott were nominated for the position of Curator of the Library and Museum.

Dr. Wield read the following paper on

THE TREATMENT OF THE THIRD STAGE OF LABOUR.

By David Wield, M.A., M.D., Brisbane.

When your secretary some days ago honoured me by asking me to contribute a paper to this society, I was more than tempted to refuse, and plead the difficulty of hurriedly choosing a subject. Even then I did not realise how great that difficulty was, nor how I should find that this simple and familiar theme would prove a fitter one for a lengthy treatise than for the few remarks which the limit of time will allow me to make. So I am more or less reluctantly compelled to restrict my observations mainly to the methods of interference employed in the conduct of this stage, and to leave the after speakers to open up the further discussion of the many other points of interest, which are suggested by the too ambitious title.

The third stage I have selected, because it is the one in which we are accustomed systematically to interfere with Nature's workings, and where, however smoothly and safely she may conduct her case, we are ever apt to hurry to proffer her our hasty, and sometimes harmful, though often beneficial, help.

In general practice we are only too often tempted, and all but invariably expected thus to thrust forward our services, and after all, it is but natural that such should be the case. When the child has been safely born, the tired friends and attendants, exhausted with hours of waiting and anxiety, make no effort to conceal their impatience at any delay of the welcome announcement that all is now well and happily over, and that the weary mother may at last enjoy her well-earned rest and sleep. The physician, too, is by no means averse to an early return to his home, but he knows that he cannot leave his half-delivered patient till her afterbirth has come. The wish is father to the thought, and he readily persuades himself, ere he has waited many minutes, that if the placenta be not already in the vagina it ought to be there, and, acting on this persuasion, by one or other of the many methods in use, he soon has demonstrated its presence there, and immediately afterwards outside the vulva. Such has been the experience of peoples, civilized and savage, and of times ancient and modern, and many and various have been the means used to bring about the desired end.

The indirect methods, such as coughing, sneezing, bearing down, and straining are among the oldest. They were well known to the Greeks and Romans, and are all but universally inculcated by the midwives of to-day. Nor were they always employed in their pure simplicity, for while the Grecian mother had her mouth and nostrils held when the pepper produced its effect, the Roman matron occasionally took her snuff, while she hung by the arms from a ladder.

More direct methods, such as kneading the abdomen, shaking the patient, and pulling at her cord were also in favour with these ancient accoucheurs. Traction they almost elevated into a science when they added to the operator's intermittent efforts, the mechanical and continuous effects of heavy weights. If these still failed, they showed but little patience, and our age of Listerism and aseptic midwifery is all but astounded when we learn that the common practice of the followers of Celsus was early manual detachment by the introduction into the uterus of the "oil-anointed" hand.

Similarly among the uncivilized nations of to-day, we find a large variety of more or less active methods of placental separation employed. The people of India tickle the fauces to produce vomiting, or press the abdomen or shake the patient till she is relieved; the Japanese till recently put all their faith in traction; and the Melanese made the parturient accomplish her own salvation by tying the cord to her great toe. Other peoples have faith in expression by kneading, and apply it in the most varied manner with the patient sometimes standing, sometimes sitting, and sometimes lying. What seems more or less unique is what is said to be the custom of some of the Australian blacks, whose women rid themselves of their placentæ in the same manner and position as they relieve themselves of the contents of their recta.

Nor yet in the most advanced centres of European learning has there been any lesser conflict either of theory or of practice. The purely passive treatment has never been greatly in favour with our British teachers. In the 18th century it was advocated by William Hunter and his adherents, but disastrous results not infrequently ensued, from carrying to extremes a blind faith in Nature's ability to safely end a physiological process; and the hæmorrhages that accompanied, and the septicæmias that followed it led Smellie, on the one hand, in the middle years of that century to employ and advocate early funis traction, and manual detachment if that did not succeed, and induced Dr. Dease, of Dublin, on the other hand, to formulate in 1783, the first principles of the Dublin method of expression, by pressure or friction of the fundus. Half a century later, Dr. Churchill was enjoining the British student to employ "axis-traction without the use of force," and more recently still a combination of expression and traction was extensively employed. In the Continental schools, on the contrary, the passive method long prevailed. To leave the matter wholly to Nature was even in the early years of the 19th century, the general teaching of Germany, and in the women's hospitals there, the uterine contents used to be extruded in periods varying from a few minutes to a few days. One clinician has cited 120 cases, in 24 of which the placenta was still in the passages 48 hours after the second stage had ended, and as many more in which the average duration of the third stage was no less than eight hours. Doubtless it was a long run of such lingering cases, and perhaps also a humane and natural desire to end the suspense and anxiety of the parturient, that led Credé, of Leipsig, in 1861, to introduce a modification of the Dublin method of expression. Credé's method was hailed with acclamation, and, though its indiscriminate application and abuse brought some measure of discredit upon it, it has more than held its own. In private practice on the Continent, it, or some of its various modifications, was till lately the one generally employed, though in many of the cliniques there has been a return to a more or less expectant method. Schroeder's method of leaving matters alone till the placenta has passed below the retraction ring and then hastening its further expulsion by pressing the flat of the hand on that part of the uterus, is one of the most excellent of the so-called modifications. But it is not really a modification of Credé's teaching; it is rather a distinct and rational method based on a truer understanding and interpretation of the physiological processes that accompany the natural separation and expulsion.

Before proceeding to criticise these various methods, let us briefly consider what is the order of events in a case that is left to nature. After the severe and forcible pains that have accompanied the birth of the child, the mother lies passive, tired and wearied by her late strong voluntary efforts. The uterine muscle, too, as if exhausted by its severe contractions, has ceased its work for a time. For some five or ten minutes this state of rest continues. Then, if the hand be placed on the abdomen, regular rhythmical contractions and relaxations of the uterus can be felt alternately succeeding one another, till, during or at the end of one of these contractions the uterus seems to increase in size and to move as if it were rising out of the pelvis. At the same time another inch or two of the cord is extruded from the vulva, and a slight bulging can after be seen just above the pubes, which is due to the separated placenta forcing up the wall of the lower uterine segment.

While these contractions have been separating the placenta, they have been sealing the vessels of its site. Each contraction of the uterus as a whole is accompanied by retraction of its individual muscular fibres, a process which is not ended with the contraction, but continues during the subsequent relaxation. By these means the uterine wall is diminished in thickness as well as in area, and sufficient pressure is applied to obliterate the vessels of the muscular half of the uterus, as these vessels course among its fibres in their zigzag or spiral paths. The vessels of the lower part have already been closed by a form of thrombosis, but still there has been a considerable loss of blood. All that which filled the maternal venous sinuses and the placental cavernous structure, as well as what was contained in the vessels of the placenta and cord, is discharged when separation takes place—some of it, by collecting behind the partially separated structure, has probably aided mechanically in the act of separation.

So far little time has been lost. In a normal case the separation is effected and the placenta lies in the lower uterine segment or in the vagina ere half an hour has gone; but its expulsion thence is often very tedious and slow. It lies in a channel which has but lately been enormously distended, which contains little muscular fibre in its walls, and which is beyond the control of the uterine forces. Nothing but a strong voluntary contraction of the abdominal muscles can force it further, and such action may be delayed for hours.

From this description it is evident that though we may well leave the separation of the placenta and its expulsion from the upper part of the uterus to the powers of nature, we shall in very many cases be required to hurry its further progress on account of the danger of hæmorrhage which its delayed presence, as it lies partly or wholly within the cervix, may occasion. By doing so, we allow the now empty uterus to assume that condition of almost tonic contraction which alone can effectually seal its torn vessels and prevent the further effusion of blood.

The treatment which most accurately follows this line of action is that system lately perfected by the Dublin School, which is now so deservedly popular. In this method, at the completion of the second stage the patient is turned over on to her back, and the hand of the operator, placed lightly on the fundus, rests there till placental separation is felt or seen to have taken place. Then, and not till then, force is used, and at the height of the next pain firm pressure is made and the placenta is expelled out of the lower uterine segment or vagina.

Compare with this the "funis-traction" or "axis-traction" methods. They are based entirely on wrong principles, and emply a *vis a fronte* when *a vis a tergo* is what is wanted. When employed early, and before the separation of the placenta has naturally taken place, these methods incur the danger of producing a condition of partial separation and consequent severe hæmorrhage; of leaving a portion of placenta and membrane, or all of the membrane, behind; besides the possibility, by using force, of tearing the cord away from its attachment, or even inverting the uterus If employed after the placenta is separated but is still within the lower uterine segment, the risk is incurred of stimulating the lower part of the uterus to contraction first, and so of bringing about, by the consequent action that ensues, an hour-glass contraction of the uterus, with consequent retained placenta and further risk of hæmorrhage. How often this occurs is shown when Smellie, who used traction systematically, has left it on record that "perhaps not once in twenty or thirty cases had he occasion to extract the placenta by hand." Even if no such retention occur, the force employed acts in a sucker-like fashion, and directly invites one of the most dangerous complications of this stage —a concealed hæmorrhage behind a placenta whose margins or membranes only are still attached. Not even when the placenta is actually in the vagina is traction to be advocated, as its use then is a fruitful source of the retention of parts of the membranes.

The method of Credé, too, is far from being safe, as early employment of kneading or pressure to separate the placenta from its site has frequently resulted in the breaking up of the placenta and the retention of membranes and placental tissue, with the necessity of manual interference to remove these, and risks of hæmorrhage or even sepsis following It is also a very painful procedure, and may give rise to excessive afterpains. If employed too soon it is apt to be followed by hæmorrhage from the placental site being laid bare before sufficient uterine contraction and retraction has had time to take place, and there is no more terrible hæmorrhage than that which may occur where open vessels accompany a relaxed uterus. On the other hand, if employed carefully, not too forcibly, and not till after the placenta has been naturally separated, it is one of the best methods of expelling it; and in those rare cases where some disease of maternal or fœtal structures causes the placenta to be morbidly adherent, it deserves a fair trial before manual detachment is undertaken.

Personally, I am accustomed to employ what I might describe as a modification of the Dublin method, which I think has over its model some slight advantages. It is applied as follows:—As the child emerges from the passages, the left hand placed on the fundus follows down the uterus. The ulnar side of the hand looks towards the vertebral column, the palm is on the fundus, and the thumb and fingers, slightly out-spread, control the uterus and are ready to prevent, by moderate pressure, any undue relaxation. As soon as the child is born the parturient is turned over on to her back just as in the Dublin method. No kneading or friction is employed, and the hand still maintains its position while the tying of the cord, when its vessels are flaccid, is left to the care of the nurse. The cord is by her severed outside the ligature, and the remainder of the placental blood, except in the case of a plural birth, is allowed to escape. The cord is then rendered taut, and a second ligature is applied just where it emerges from the vulva. Ere long the rhythmical contractions of the uterus begin, stimulated probably by the presence of the hand on the fundus. Each contraction is accompanied by slightly diminished and each relaxation by somewhat increased pressure—so graduated as to prevent the volume of the uterus increasing beyond what it was before the preceding contraction began. The pressure is made in the direction of the pelvic axis, and is applied by the fingers rather than by the palm. This constantly varying, but never strong pressure prevents any considerable amount of hæmorrhage taking place between the uterus and any early detached portions of the placenta, and would certainly tend to compel any that did occur to find room for itself by further detachment of that structure. After each contraction the hand seems naturally to secure a better hold of the fundus, until, when the placenta glides downward from its site, the fundus is held as it were, in the hollow of the hand, and is in perfect control. Firm pressure is then made downwards and towards the vulva, and the right hand is in readiness to receive the placenta as it emerges. This reception of the placenta is necessary to prevent the strain of its weight tearing across the membranes, which are then, in the usual fashion, twisted into a cord, and issue apparently of themselves.

Soon the contractions lose their intermittent character and become more or less permanent, and when the so-called cricket-ball contraction is felt to have begun the left hand is at last allowed to relax all pressure, though it still remains on guard, while the placenta and membranes are floated out and examined. If all is right the blood is then washed from the genitals and thighs, a diaper wrung out of cold corrosive is applied, and only when the binder is ready for fixation is the hand lifted from the fundus.

The emptying of the vessels of the cord I take to be an additional guard against hæmorrhage, as by lessening the size of the placenta it allows an additional amount of contraction and retraction to take place before separation actually begins. I believe, too, that the tearing-off of lobules is less likely to occur in the case of a relapsed and bloodless placenta.

Since I began to employ this method I have seldom had to wait even the traditional twenty minutes for the expulsion of the placenta, and still more rarely have I found the method fail. With it, the retained placenta has practically become a thing of the past, and the adherent placenta is recognised to be as rare as the modern text-books assert. It seems to me to reduce to some extent the amount of what has been called "the usual, physiological, and inevitable gush" that comes with the placenta, and it certainly prevents hæmorrhage before, and permits only the slightest oozing after separation is complete.

Needless to say, there are cases in which it fails to produce its best effects; take, for instance, the large, flabby, inert uteri of some multiparæ. There one finds the greatest difficulty in obtaining any hold whatever, as the uterus slides like a jelly-fish from one's hand. But even in those cases it has a beneficial effect. In them, and in some others where instrumental or rapid delivery has been performed, I think it is wise to give a dose of the liquid extract of ergot or a hypodermic of ergotin after the birth of the child, but in the indiscriminate and routine exhibition of the drug I do not believe.

Only in cases of difficult or instrumental labour, or where for any other cause there has been much manipulation or examination, or where there is a possibility of the patient having been examined by an unsterilised finger, do I use an antiseptic douche at the end of a normal third stage. Then, generally, it is an intra-uterine and thorough washing with a weak mercurial solution, a channelled intra-uterine glass tube being always used and all remaining fluid being firmly pressed out of the passages after the tube is withdrawn.

The first idea of using this method was given to me by Dr. Stevenson Balfour, of Chard, when we were working together in Yorkshire in 1892, and the experience that I have had of its excellent results during the last eight years is such as to give me the utmost confidence in recommending it to your consideration as the most excellent means of assisting the safe and speedy expulsion of the placenta, and the surest preventive of hæmorrhage during and after the third stage of labour.

Discussion on Dr. **Wield's** paper :—

Dr. **Lightoller**, except in extreme cases, discountenanced the use of uterine douches.

Dr. **Robertson** had practically given up the use of ergot, except in cases where hæmorrhage might be expected or in very protracted cases.

Dr. **Hardie** did not understand the use of the ligature tied round the cord just outside the vulva. He did not agree with the practice advocated by Dr. Wield, of placing the left hand at the fundus during the descent of the child, both hands being required to assist at the child's birth. He thought that the nurse should be made to follow the uterus down, and had never had a case of post-partum hæmorrhage in his practice. He considered ergot objectionable until the placenta was expressed, but useful then in cases in which much chloroform had been used. He regarded post partum vaginal and uterine douches as inadvisable and dangerous.

Dr. **Sutton** emphasised the importance of the exercise of patience by the accoucheur during the third stage. He saw no necessity to tie the cord if, before separating the child, the operator waited until the pulsation of the vessels had ceased. He was inclined to think that the emptying of the placenta and blood before its expulsion by reducing its size, might also diminish its power of acting as a stimulus to the uterine contractions. He had practically given up the use of uterine and vaginal douches.

Dr. **Comyn** had learned something from the action of a bush nurse whom he found on a certain occasion pouring cold water on to the abdomen of a woman suffering from post-partum hæmorrhage, and had found the application of a coldhand to the abdomen a useful stimulus to uterine contraction.

Dr. **Hopkins** always made use of a uterine douche in cases in which the whole hand had been introduced into the uterus, and in high forceps cases, and had not had cause to regret the practice, nor could he understand how trouble could follow such treatment if the usual aseptic precautions were taken. He tied the cord only when its pulsation had ceased and saw no necessity for the ligature external to the vulva advocated by Dr. Weild. He had abandoned the use of ergot except in chloroform cases and doubted if any benefit accrued from its use.

Dr. **Francis** described his experience in the West, where it was almost invariable that no pains occurred even for two hours or more after the birth of the child, a feature which he had not noticed in Brisbane practice. Such cases were not accompanied by post-partum hæmorrhage, nor was there subsequent septic trouble, though he had not been in the habit of giving douches.

The **President** joined with the other members in his congratulations to Dr. Weild for an eminently practical paper. He had been struck with the absence of difficulty in many cases to which he had been summoned by a nurse to render help when the latter could do no more for the patient. He remarked on the infection carrying power of a nurse from one septic case to another. It had been his routine habit when practising in the West to administer ergot after the delivery of the placenta, and regarded the absence of uterine contraction as a result of the exhaustion of the hardworked and ill-fed women of those districts. He was not in the habit of giving douches, having been led to the conclusion of their inutility by the extraordinary absence of ill results in the practices of the nurses of the unclean type, whose habit it was to make frequent vaginal examinations without troubling to wash the hands. He remarked on the difficulty of getting asepsis in the bush, where, even were the water boiled, it was placed in unclean vessels.

Dr. **Wield** in reply thanked the members for their cordial reception of his paper. He advocated the use of douches only after very free manipulation, such as by turning, the use of the forceps, or where he believed that the unclean hands of a nurse had been used for vaginal examinations, and instanced a case in which such a nurse had examined the patient with a finger with a discharging whitlow. He used and advocated vaginal douches where the post-partum discharges were not sweet, or in cases where a tear of the soft parts was not healing well. In the Edinburgh maternity it was found that there were two chief causes for rise of temperature; first, the use of vaginal douches by the nurses, and secondly, the visits of the Scripture readers. The knot outside the vulva, spoken of in his paper, served merely as a guide to the advance of the placenta in its downward passage. He firmly believed in the value of the hand of the accoucheur upon the abdomen during labour, but in cases of rigid perinæum, or any other exceptional condition, he made the nurse follow the uterus down. He did not think that the loss of two or three ounces of blood from the placenta could, to any appreciable degree, reduce its stimulating power over the uterine contractions, and repeated his belief that empty lobules of placenta were less likely to be left behind when the body of the placenta came away, than if full of blood. He thought that the use of douches should be confined to the medical attendant, and advocated the sitting up for a minute or so of the patient on the second or third day in order to assist in the getting away of the uterine discharges. He had not had any experience of absence of pains after the birth of the child except in cases of eclampsia or long continued inertia. In cases such as those described by Dr. Francis, as occurring commonly in the Western districts, he would advocate the use of hot uterine douches combined with Crédé's kneading method, applied with both hands. He believed that the great majority of cases of retained placenta were due to traction on the cord, and had himself met with only two cases in which the retention was due to organic lesions.

Dr. Lightoller, in reference to aboriginal methods of assisting in the expulsion of the placenta, related his experience of three cases in which he had been called upon to help a "gin," in each of which he had had no difficulty in delivering the patient of the after birth. In the first case he found his patient sitting upon the branch of a tree some four or five feet from the ground and grasping with both outstretched hands the branch overhead, while attendant lady friends urged her to try and defœcate. In the second case, which was accompanied by much howling from victim and operator, the latter sitting astride the abdomen of the mother, went through the action of a child riding a wooden horse; as she was a very fat woman this was attended with considerable suffering on the part of the patient, but the position of the placenta was not influenced. In the third case the patient was found standing to her waist in a water-hole—a custom which would appear to be very prevalent among aboriginals.

St. Agnes Private Hospital, Sydney.—We have carefully inspected this institution, and must congratulate Dr. W. Edward Warren (by whom it is being conducted) upon its arrangement and organisation. Every precaution is being taken to maintain it in its present thoroughly sanitary state; all the walls and floors have been specially prepared so as to secure as nearly as possible an aseptic condition of the various rooms, which are excellently appointed and which are capable of accommodating 22 patients. Dr. Warren desires us to intimate to the medical profession that the filling in of the form *re* medical history of the patient, and which was attached to the hospital circular recently sent out will not be insisted upon. We are thoroughly satisfied that patients sent to this hospital for treatment will have excellent nursing, and that every convenience and comfort will be provided. We have much pleasure, therefore, in recommending it to members of the medical profession generally.

SOUTH AUSTRALIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

◆

The monthly meeting was held at the University at 8 p.m. on 28th February, 1901.

The President (Dr. Brummitt) occupied the chair. Present: Drs. W. Giles, Marten, Sweetapple, Todd, G. Hayward, Jay, A. A. Hamilton, Symons, Bonnin, Scott, H. Russell, Roseby, Fischer, Corbin, Harrold, Swift, and Gunson (Hon. Sec.)

A case of marked rickets was shown for Dr. A. E. Wigg.

Dr. Marten showed a specimen of hour-glass constriction of stomach.

Dr. Fischer showed (1) Large foreign body which he had removed from a child's nose; *æt.* 8 years. On examining the nose Dr. Fischer saw that the left nostril was occluded by a large, red, fungating mass, which bled freely when touched, and which, when examined, was found to contain a foreign body. This foreign substance, when removed, proved to be a large screw over an inch in length, embedded in phosphate of lime; the screw portion had greatly rusted away, but the head was fairly well preserved. The father is convinced that the screw has been at least five years in the nose. Nasal obstruction and discharge ceased almost immediately after the removal of the offending substance. (2) An oat seed removed from the nose after a period of presumably twenty years. Mr. D——, *æt.* 26, was recommended to Dr. Fischer on account of frontal headaches, which persisted in spite of the correction by glasses of his myopic astigmatism. The removal by Dr. Fischer of a large longitudinal septal spine which was obstructing the right nasal passage relieved greatly the headaches, but did not altogether remove them, and as a slight nasal discharge continued, the nasal douche was prescribed. With the first washing a long spikelet escaped, followed later on by the oat seed itself. The headaches now are practically absent, coming on only after prolonged use of the eyes, a condition of affairs which is only to be expected, however, in a case such as this of myopic astigmatism of fairly high degree, and there is neither nasal discharge nor any detectable nasal lesion. (3) Some exceptionally large adenoids which he had removed *en masse* from children between the ages of 6 and 8 years, which showed beautifully the many characteristics of these growths. (4) A papilloma of the uvula, which was attached by a long pedicle, and when in situ caused reflex symptoms by tickling the base of the tongue. (5) Fair sized cystic fibromata of the naso pharynx.

Election: Dr. Violet Plummer and Dr. Sydney L. Dawkins were declared duly elected to the Branch.

The Hon. Secretary read some letters *re* giving pecuniary help to a member, who, with his wife and young family, were at present in much need of the same. Ill health had compelled him to give up his practice; he has been for some months in a private hospital, and is now recovering strength after an operation. Various members had already subscribed to the fund, and the Hon. Sec. will be glad to receive subscriptions from others. The Benevolent Fund has given £10.

The meeting agreed that this is a worthy case for voluntary subscriptions, and several were handed in.

Dr. Corbin said: Arising out of the appeal made in the letter just read and the subscription list, is the subject of the Medical Benevolent Fund. He had the idea that the existence of the Fund was unknown to many of the members of the Branch. Up till 1879 there was a society called the Medical Association of South Australia. Its principal duties appeared to be to arbitrate in matters of dispute between individual members and between members and benefit societies. There was no time left at its meetings for discussion of professional and scientific subjects. This want was so much felt by the younger members of the profession that a new Society was formed "to promote the advancement of medical and surgical science and the reading and discussion of original papers, etc., etc." This became the South Australian Branch of the British Medical Association, with the provision, by its bye-law, of means for dealing with ethical matters. The functions of the Medical Association of South Australia were thus at an end, and its members found themselves in possession of a sum of money amounting to £197 14s. 6d. At a meeting held in August, 1881, it was decided that this money should be devoted to founding a Medical Benevolent Fund "for the relief of distress in the families of medical men practising in South Australia who may be in reduced circumstances; to aid in educating and bringing up their children, and to form bursaries, etc., for the assistance of medical students the sons of medical men." A meeting of the whole profession was held later in 1881, when rules were adopted and the Society was incorporated. In the first two years of its existence £45 was subscribed, and various small sums annually until 1896, since which year no subscriptions have been paid. One of the rules of the Association is that only subscriptions received during any year and interest on capital for that year shall be available as income, and any surplus remaining at the end of the year shall be added to the principal. In seven of the years since the Association was founded pecuniary help has been given to medical men or their widows amounting to £54. The capital of the Association now amounts to £474 18s. 5d., the interest on which is £12 to £14 per annum. For the last four years no claim has been made on the income, and consequently it has been funded. He suggested that it might be desirable to remind members of the opportunity of giving effect to their benevolent impulses by appending to the annual report and balance-sheet of the Branch a brief synopsis of the objects of the Benevolent Fund, with a list of subscribers for each current year. He also asked members to take into consideration, with the view to discussing the scheme at a future meeting, whether it would not make the Fund a more useful and active organisation if it were managed by a sub-committee of the Association acting similarly to the Parliamentary Bills Committee, and undertook to interview the Committee of Management, now reduced by death and removal to five members, to enquire if they would be willing to hand over the management to such a body.

Dr. TODD read his paper on "Intestinal Anastomosis" (see p. 89).

Dr. BONNIN read a paper on same subject (see p. 90). Various members discussed the papers, and the authors replied.

SPRINGSURE HOSPITAL.—Applications, with testimonials, will be received by the undersigned till April 16th, 1901, from legally-qualified medical men willing to act as Medical Officer to the above institution. Salary, £300 per annum (medical officer to provide all instruments required). Private practice allowed. A suitable residence can be rented. Envelope containing application to be endorsed, "Application for Medical Officership." For further particulars apply G. R. MILLEKEN, Secretary, Springsure, Queensland.

BALLARAT DISTRICT BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

THE annual meeting of the Branch was held at Ballarat on Thursday, January 31st, at 8.30 o'clock. Present: The President (Dr. George Palmer), Drs. Champion, Hardy, Jordan, Laurie, Martin, Mitchell, McGowan, Richards, Salmon, Sleeman, W. Beattie Smith, G. Affleck Scott, Usher and Wilson.

Apologies were received from Drs. Pinnock and R. Scott.

The minutes of last annual meeting were read and confirmed.

Accounts amounting to £3 0s. 3d. were passed for payment.

Correspondence was received from the editor of the Ballarat *Courier* and the Medical Defence Association of Victoria.

The following gentlemen were ballotted for and unanimously elected:—Drs. Dombrain, of Casterton, and G. F. Sleeman, of Creswick.

The annual report and balance-sheet as hereunder were received and adopted:—

"Your Council has pleasure in recording that during the year just closed the Society has quite maintained its position of usefulness and its popularity. The membership stands at 33, being slightly less than last year, owing to removals and the lamented death of Dr. Wm. Corry, of Kingston, who had been on our roll for several years. The attendances at our quarterly meetings have been record ones, the papers and discussions decidedly above the average in quality and interest. The discussion on diphtheria proved a most profitable one, and was entered into by every member present at one of the largest meetings yet held.

"The relation of the District Branch to the parent Branch of the colony has given rise to anxious thought. Owing to an unfortunate deadlock in that Branch, resulting in the resignation of the whole of its Council and a large proportion of its members, we were forced to seriously consider whether or not we could continue under the patronage of the remnant. It was felt, however, that as we are practically self-governing, we would be unwise to sever our connection with the parent Association, and it was therefore unanimously resolved to continue for the present as we are.

"A further attempt has been made, this time we hope with success, to induce the local newspapers to suppress the names of medical men when publishing laudatory paragraphs in their columns. While not wishing in any way to dictate a policy to the lay press, medical practitioners feel that they have a distinct right to object to their names being published in an unprofessional manner, which can only lead to misunderstandings with their brethren.

"The Australian Natives' Association has consulted your Council as to the terms and conditions which would be acceptable to the medical profession for attendance upon the Australasian Women's Association. They therefore called a meeting of the profession in Ballarat, which drew up a set of conditions which have been subscribed to by every practitioner but one. This practical unanimity has been the best proof that, as a body, we consider the Friendly Societies have reached the limit beyond which, in fairness to ourselves and their own sick members, we cannot go.

"A large number of most interesting and instructive exhibits has again been prepared and shewn by Drs. McGowan and Bennett.

"The following papers have been contributed during the year :—

C. H. W. Hardy—Extra Uterine Pregnancy.
J. F. Usher—Twin Pregnancies.
H. R. Salmon—Hydrocephalus complicating labour.
  An unusually large Calculus.
Hy. Laurie—Bullet wound of Spinal Cord.
  Rigors occurring late in Typhoid Fever.
Ed. Champion—Case of Poisoning by Rackarock Oil.
A. G. McGowan—Syncope after Soap Enemata.
  Case of Quinine Hæmoglobinuria.
A. E. Martin—Notes on a case of Tracheotomy in a young child.
  The use of the Ophthalmoscope by the general Practitioner.
R. Scott—Diphtheria (introducing a discussion).
J. M. Gardiner - Report of attendance at International Medical Congress, Paris, 1900.

The correspondence from the Medical Defence Association was referred to the Council with power to act.

The retiring PRESIDENT then gave a most interesting address (reported at page 85), for which he was cordially thanked by a special resolution moved by Dr. W. Beattie Smith, who referred to his successful efforts in at last providing clinical teaching in mental diseases in the Melbourne University.

Dr. PALMER then introduced Dr. G. Affleck Scott as his successor in the chair for the ensuing year.

Dr. SCOTT was enthusiastically received as President, and thanked the members for their compliment and their expression of confidence in him. He then declared the following officers duly elected :—Vice-President, W. Beattie Smith, F.R.C.S. Ed. ; Treasurer, H. R. Salmon, M.B , Ch.B. ; Hon. Secretary, J. T. Mitchell, M.D. ; Members of Council (2), Ed. Champion, M.B., Ch.B., J. K. Richards, M.D.

The Honorary Auditors for the past year were thanked for their services, and Messrs. W. E. F. Smyth and R. A. Cue were re-elected.

Dr. McGOWAN exhibited a most interesting specimen of a transposed cæcum which was found in the left iliac fossa, the colon passing diagonally up to the right hypochondrium and then following its usual course. This part of the bowel from the top of the cæcum was less than half the diameter of the small intestine The kidneys also were exceedingly small, one weighing less than three drachms.

In consequence of the Queen's death the annual dinner, to which the retiring President had invited the members, was abandoned.

RECEIPTS AND EXPENDITURE FROM JANUARY 25TH, 1900, TO JANUARY 31ST, 1901.

DR.	£	s.	d.	CR.	£	s.	d.
To Subscriptions to Victorian Branch ...	57	0	6	By Balance, 25th January, 1900	1	11	10
„ Repayment of Interest	9	9	2	„ Members' Subscriptions	68	15	6
„ Printing	2	10	6				
„ Petty Cash	1	1	6				
„ Balance in Union Bank	0	5	8				
	£70	7	4		£70	7	4

	£	s.	d.
Fixed Deposit Receipt in Union Bank	£73	10	6
Cash Deposit	9	9	2
	£82	19	8

Examined and found correct,

W. E. F. SMYTH, } Hon. Auditors.
R. A. CUE, }

January 23rd, 1901.

E. CHAMPION, Treasurer.
JAMES T. MITCHELL, Hon. Secretary.

We have received from Messrs. Burroughs, Wellcome and Co. several specimens of their "Tabloid" brand preparations, amongst them being benzo-naphthol (gr. V. compressed), which should prove of great service as an intestinal antiseptic in typhoid fever, tropical dysentery and fermentative dyspepsia. Erythrol tetranitrate (gr. ½), a substitute for nitroglycerine in angina pectoris, etc., and hypodermic tabloids, No. 89, Morphine Sulphate, gr. ¼ ; strychnine sulphate, gr. 1/60. No. 92, ergotinine citrate, gr. 1/100; morphine sulphate, gr. ⅙, of which they state "The combination of morphine and strychnine sulphates has been issued to meet the demand, which has been brought under our notice, for such a preparation for use in phthisis, with cough and heart failure. A further use for such a combination has been indicated by one of our correspondents, who suggests the advisability of administering it before an anæsthetic, to prepare a patient for an operation. It is stated to render less chloroform necessary, and the presence of the heart stimulant appears to be an advantage. The combination of ergotinine citrate and morphine sulphate has been introduced as some prescribers desire to administer ergotinine citrate in combination with morphine." A pamphlet on "Hypodermic Medication," just issued by the firm, in addition to giving the therapeutic action of the respective drugs has a table of hypodermic antidotes, which should prove useful to the general practitioner. We have tested the solubility of the hypodermic "tabloids," and find they dissolve very readily in the barrel of the syringe.

Medical Consulting Rooms, Macquarie Street North, to let. Apply P. R. Pedley, 227 Macquarie Street

PROCEEDINGS OF OTHER SOCIETIES.

REPORT OF THE INVESTIGATION COMMITTEE FOR THE YEAR 1900.

At a general meeting of the medical profession held at the Royal Society's Room on 31st August, 1900, it was suggested that an investigation committee should be appointed by the N.S.W. Branch of the British Medical Association for the purpose of inquiring into and reporting upon the relations of medical men with the friendly societies and the hospitals. The committee drafted a code of regulations for its guidance, which has been distributed to every medical practitioner throughout New South Wales and is now submitted for confirmation.

It will be seen from these by-laws that the ground to be covered by the committee is extensive; indeed, the whole subject for investigation is very extensive, seeing that, according to the latest official returns available, there are 819 different lodges in New South Wales, with a membership of 69,124, representing a population of over 300,000 persons, including the wives and families entitled to medical benefits. The receipts of these lodges from all sources for the year under review amounted to £252,227 7s. 4d., while the payments for medical attendance and medicine was £63,979 15s. 4d., and after deducting the cost of medicine about £50,000 was paid for medical attendance, which is considerably less than one fourth of the earnings of the lodges for the year. The most glaring instance of sweating is the Manchester Unity Independent Order of Oddfellows, the total earnings of this order for the year amounted to £80,830 13s. 1d., with a membership of 17,770, and the amount paid for medical attendance and medicine was £18,229 6s. 8d., or at the rate of 4¾d. per family per week, while at the same time no less a sum than £13,153 7s. 3d. was added to the accumulated funds of the Order. These figures show clearly the need of combination to meet combination, with this end in view the committee issued a circular inviting answers to a series of questions dealing with the subject of the Friendly Societies and the hospitals with regard to the medical profession. One hundred and fifty-one replies were received, 24 from city practitioners, 50 from suburban and 79 from country. A synopsis of these returns is appended hereto :—

CITY RETURNS.

Twelve returns have been received from City practitioners who have hospital appointments. The consensus of opinion as set forth by these is that patients who can afford to pay for private treatment are freely admitted to the metropolitan hospitals both as in and out patients. The Railway Association is condemned for its system of dealing with the hospitals with regard to the treatment of its members.

Two returns have been received from gentlemen holding lodge appointments only in the City. The contention of these is that the medical officers of the Manchester Unity and kindred societies are under paid.

Five returns from gentlemen holding both hospital and lodge appointments have been received. The following societies are generally condemned—The People's Prudential, Manchester Unity, Balmain Institute, St. John's Lodge, Newtown, and the A.H.C. Guilds. Generally speaking there is no guarantee as to the payment of fees for special work and there is no income limit in any of the lodges under review.

SUBURBAN RETURNS.

Ten returns have been received from gentlemen holding hospital appointments only. The same complaint with reference to the admission of patients who are able to pay is made about the Suburban Hospitals. Great objection is also made to the so-called fees paid to the medical officers of the Lewisham Hospital.

Eleven returns have been received from practitioners in the suburbs holding Lodges only. One redress which is asked for by these gentlemen is the power to remove the names of any undesirable members from their lists. The Societies generally condemned for various reasons are the North Sydney Dispensary, Manly Medical Society, People's Prudential. A.H.C. Guild, Leichhardt Medical Institute. Balmain Institute, Parramatta Dispensary, and the private wards of Lewisham Hospital.

Fourteen returns have been received from gentlemen holding both Hospital and Lodge appointments. In the Societies represented by these returns there is no income limit, nor is there any guarantee as to the payment of fees for surgical or operative work. A redress which is asked for is the limitation of the medical officers work to the legitimate members of the Dispensaries where a fixed salary is paid. The outdoor patients department of the Balmain Hospital is very much abused by persons getting medicine and advice, who should be compelled to become private patients. Another complaint is that while the numbers of members of the Dispensaries grow, the remuneration remains the same; in one case the members have increased from 900 to 1281, still the salaries are the same.

COUNTRY RETURNS.

Ten returns have been received from gentlemen residing in the country who hold only hospital appointments. Of these there are two honorary officers and the remaining eight receive salaries ranging from £120 to £40 per annum. The Committees are elected by the subscribers in accordance with the Hospitals Act. The mode of admission to the hospitals varies, but generally speaking the admission is by the recommendation of the medical officer on a subscriber's order. There is only a feeble attempt to ascertain the incomes of patients with a view to their either paying maintenance, or being kept out of the hospitals.

Twenty-six returns have been received from gentlemen holding lodge appointments in the country districts. The rates of payments range from 17s. to 26s. for attendance, and for medicine and attendance 22s. to 30s. per annum per member. Special fees are paid for midwifery and miscarriages as a rule, but the lodges do not guarantee the payment of the fees. The mileage limit ranges from one to four miles, and the rate per mile varies from 1s. to 7s. 6d. per mile. There is no income limit. In almost all the lodges there is a special fee for administering anæsthetics, but minor operations are generally included in the attendance. Arrangements are terminable monthly and quarterly. In one instance there is a yearly agreement.

The points requiring consideration and redress are—(1.) An income limit. (2.) Uniform mileage and rate of payment. (3.) Operations to be paid for. (4.) All fees to be guaranteed by the lodges. (5.) Limitation as to the age of children to be attended, and no other relatives to be included.

The question as to the minimum rate of payment suggested is answered by the majority suggesting 26s. to 30s. per member for attendance and medicine, and 20s. for attendance only.

Forty-five returns have been received from gentlemen holding both hospital and lodge appointments. Thirty-six of these receive salaries from the hospitals ranging from £12 to £150 per annum. According to the returns the same difficulty with regard to the admission of persons well able to pay is met with in the country hospitals. In the case of one country hospital, it appears that all subscribers to the hospital are entitled to the attendance of the medical officer at half the mileage fees. At one N.Z. hospital admission is by ticket and any person holding a ticket may remain six months in the hospital without any charge for maintenance. The general charge for patients in the country hospitals is three shillings per day, irrespective of what it costs to carry on the work, this class of patients are taken in some of the hospitals to the exclusion of those in indigent circumstances.

With reference to the lodge practice in the country districts the complaint that well-to-do members are admitted and take part in the benefits seems to be the greatest abuse. None of the lodges have an income limit and the limitation of the ages of children, is too high. It is also suggested that lodges should guarantee all fees, and that the mileage rate and distance should be uniform.

A country practitioner states we have obtained the present basis of agreement by united action on the part of the local medical men. When lodges demur we point out that our actions are endorsed by the N.S.W. Branch of the British Medical Association. and when threatened with the importation of another medical man to act as lodge doctor, we point out that only a practitioner of low grade would accept under the circumstances. We would consider such a man a medical "blackleg" and would refuse to meet him in consultation. This acts as a sufficient deterrent."

With regard to the question of hospital abuses, the line of demarcation is not nearly so well defined, although there is a general opinion that the hospitals are abused by the treatment of both in-door and out-door patients who are well able to afford the ordinary medical fees. This matter has been under discussion for a considerable time, but no decided action has as yet been taken. The Committee are of opinion that some steps should be taken with a view of ascertaining whether patients who are able to pay for maintenance should be admitted to the hospitals under any circumstances other than accidents. Exception has been taken to the method adopted at the Lewisham Hospital of paying medical officers certain so-called fees. At Bingara Hospital subscribers to the hospital are entitled to the services of the medical officers at half the ordinary mileage rates. This is a practice which should be discontinued.

The need of union was never more apparent than at the present time, and the prompt action of the Council of this Branch in dealing with the question of the establishment of Branches of the Australian Natives' Association shows clearly what can be done if the profession present a united front to the aggression of the Friendly Societies. Every medical man who has answered the circular issued by the Committee concedes the need of united action.

A. MAITLAND GLEDDEN,
Hon. Sec. Investigation Committee.

EDITOR'S LIBRARY.

THE LIBRARY OF THE EDITOR OF THE "AUSTRALASIAN MEDICAL GAZETTE," 121 BATHURST STREET, SYDNEY, IS NOW OPEN TO ALL MEMBERS OF THE BRITISH MEDICAL ASSOCIATION, FROM 2 TO 5 P.M. EVERY WEEK DAY, HOLIDAYS EXCEPTED.

ABSTRACTS.

EUCALYPTUS GLOBULUS.

By A. B. Woodward, M.D., Tunkhannock, Pa.

EVERY day brings to our notice new fads. Some have merit, many of them have no merit, as proven by real test. Real merit in remedies is proven only by repeated trials under different attending conditions. Truth, in real remedies, will give uniform results in conditions for which they are remedies, under all circumstances, whatever other conditions may be present.

We are too liable, in our taking to so many *new things*, to forget our old and well tried friends that have so many times proven themselves to be our faithful saviours, in many cases where we thought no aid for the vital energy could be given, and yet the old reliable have proven to be the remedies required.

Along in the early fifties, I, by the merest accident obtained an idea of the valuable properties of the long-leaved eucalyptus, as being possessed of antiperiodic, disinfectant, and antiseptic properties of great merit. After many trials to obtain a sample of the beans by writing to Philadelphia, New York, Detroit, Cincinnati, and other places, and receiving the one answer, "There is no such thing," I still had faith in what the Australian had told me years before—the only information I had of the article.

My persistency prompted me to write to Australia, and send a five dollar note enclosed in the letter. In due course of time I received by mail one pound of the long leaves of which I made a saturated tincture with 95 per cent. alcohol.

After repeated experiments with the tincture, I reported five cases treated with it to the *E. M. Journal*, and which was printed in that Journal on page 20, 1877. By this time I had no trouble in getting the long leaves in 200 pound bales from Australia.

From 1872 to 1875, I was many times led to think that eucalyptus and cold water, with the evaporation from boiling the beans in the room and common sense nursing. would save any case of typhoid fever or diphtheria. From observation of facts in its use, I had myself become quite "faddy."

As a disinfectant in cases of diphtheria or scarlatina, it has no equal. In dysenteric cases of this season having a tendency to a putrescent state from the very start, it has, as ever before, shown its great power in overcoming the putrid condition at once, as above described in the typhoid cases. In confinement cases it shows its superiority over all other disinfectants, especially for the washes so necessary for the vagina. The cases reported in the Journal give a partial outline of its usefulness.

When I step into a sick room, no matter what the so-called disease may be, and I catch a bad odour (by the way, my nose is a sure guide, never failing to impress me with truth) I think of my old and true friend, eucalyptus, and especially in bad managed cases of abortion or confinement, dysentery and all fevers, when putrescency is the first thing that strikes you when entering the sick room, and sometimes when entering the outer door. Eucalyptus can be used in all cases without danger of doing harm. *Mark this.* In all the years of my extensive practice, since using eucalyptus and equisetum—and which I always do in fevers—I have never had a case of hæmorrhage of the bowels, neither tympanitis.

Eclec. Med. Journal.

LETTERS TO THE EDITOR.

PARALYSIS FOLLOWING INJECTION OF COCAINE.

(To the Editor of the Australasian Medical Gazette.)

Sir.—The following observation of symptoms following the injection of cocaine in a dog may prove of interest in connection with the injecting of cocaine into the spinal cord in the human subject.

Having a pure bred sable collie slut just emerging from puppyhood, and also an old German collie whom I was loth to destroy or give away, I determined to castrate the latter. Even when muzzled we found it difficult to hold him, so I injected two grs. of cocaine—one grain on each side of the scrotum. The dog evidently felt nothing, and when released showed no ill feeling to any of us. We then noticed that his hinder extremities were completely paralysed. He could move head and fore legs but there was complete paraplegia. He could not shift his position nor wag the tail. It was about three hours before the effect began to wear off at all—next day he was all right. Had the cocaine been injected into the cord, no surprise would have been felt—the interest lies in the fact that it was merely injected into the loose tissue of the scrotum and yet the whole hinder half of the animal was paralysed *pro tem.*

I am, Sir,
Yours faithfully,
LEONARD W. BICKLE, F.R.C.S.E.

Adelaide, South Australia,
March 8th, 1900.

Speech Defects Corrected, Lip Reading for the Deaf, German (Oral) System for Deaf Mutes, Children and Adults. Appointments by letter. For terms, &c., Miss Adderley, Room 50, Vickery's Chambers, 76 Pitt Street, Sydney.

USE OF SUPRARENAL CAPSULE.

(To the Editor of the Australasian Medical Gazette.)

Dear Sir,—I intend to publish a second paper on the use of the Suprarenal Capsule in Organic Heart Disease. (For first paper see *New York Medical Journal*, October 6th, 1900, pp. 581-585.) Will you kindly ask the readers of your journal to send me the reports of their cases as follows:—

I. The condition of the heart and pulse, and also the pulse rate.

II. The effect on the heart and pulse, and also the pulse rate within ten minutes after the suprarenal powder, three grains, is chewed and swallowed without water, by the patient.

Yours truly,
SAMUEL FLOERSHEIM, M.D.

218 East 46th Street,
N.Y.C., U.S.A., January 16, 1901.

DOSAGE FOR CHILDREN.

(To the Editor of the Australasian Medical Gazette.)

Dear Sir.—I fear that Dr. Knott's method of apportioning doses to children, as quoted by Dr. Morris Gamble, has neither the virtue of accuracy nor the merit of simplicity. In the first place 20 years is too young to be taken as the standard for an adult dose; 24 years is closer to the mark. I notice also that the same dose is assigned to the ages of six and seven, and again to eight, nine, and ten—the inaccuracy of which is obvious. Further, without complicated calculations, it is impossible by this method to arrive at the adequate dose for a child of say three and a half or five and a half. My own method is to assume 24 years as the adult standard, and to prescribe a three-ounce mixture with a drachm dose—that is 24 doses. Such a mixture would contain one average adult dose for each year of the child's age. Thus a child of four months would have one third of an adult dose; a child of one year would have one adult dose; a child of four and a half would have four and a half adult doses and so on. If 24 doses are more than necessary, I make the mixture up to one ounce (eight doses) or two ounces (sixteen doses) or, (if even a less number be required) to half an ounce (four doses) in which cases the total quantity in the mixture would be one-third, two-thirds, or one-sixth of an adult dose respectively. Of course, in thus prescribing, I recognise that age is not an absolute criterion of the quantity required, but that other factors enter into consideration (such as the size, weight and constitution of the child), and I modify my prescriptions accordingly.

I am, yours etc.,
Glen Innes, JOHN MACPHERSON.
March 1st, 1901.

P.S.—If the dose of one drachm be inconveniently small, *e.g.*, for a child of eight years or upwards, a six-ounce mixture, with a two-drachm dose, would give the same proportions.

J. MacP.

"Fear as a factor in the causation of deaths under Anæsthetics," by L. W. Bickle, F.R.C.S.E., which appeared in *Australasian Medical Gazette*, July, 1900, is referred to in *Treatment*, January, 1901.

Australian Medical Association Benevolent Fund.—Any person having a claim on the above, please apply to Dr. Milford, Treasurer, 231 Elizabeth Street, Sydney.

NOTICES.

ORIGINAL ARTICLES WILL BE INSERTED SOLELY ON CONDITION THAT THEY ARE NOT CONTRIBUTED TO ANY OTHER PERIODICAL.

All communications intended for publication may be addressed "The Editor, Australasian Medical Gazette, 121 Bathurst Street, Sydney," or to the Branch Editors for the other colonies.

Contributors will have to pay the cost of illustrations accompanying their articles.

The Australasian Medical Gazette and the British Medical Journal are supplied to all Financial Members of the New South Wales, South Australian, and Victorian Branches Free of Cost.

Subscriptions (£2 2s. per annum) should be forwarded to the respective Branch Treasurers as below:—

New South Wales, Dr. Crago, 16 College Street, Sydney; South Australia, Dr. W. T. Hayward, Adelaide; Victoria, Dr. George Cuscaden, Melbourne.

The Gazette is supplied to Members of the New Zealand and Queensland Branches by special arrangement with the local Secretaries.

WELCOME TO OUR MEDICAL COLLEAGUES WHO HAVE SERVED WITH H.M. FORCES IN SOUTH AFRICA.

OWING to the changed circumstances caused by the lamented death of Her late Majesty Queen Victoria, since the General Meeting of the Medical Profession of N.S.W., it has been found impracticable to carry out the original resolution as to the form of entertainment, and it has been decided that the Reception to our Medical Colleagues who have served with H.M. Forces in South Africa shall take the form of a dinner. Circulars will be issued.

THE AUSTRALASIAN
MEDICAL GAZETTE.

EDITED FOR THE PROPRIETORS BY
SAMUEL T. KNAGGS, SYDNEY, N.S.W.;
AND FOR THE OTHER BRANCHES OF THE
BRITISH MEDICAL ASSOCIATION BY
A. B. BROOKWAY, BRISBANE, Q.; L. HENRY,
MELBOURNE, VIC.; J. B. GUNSON,
ADELAIDE, S.A.; AND J. MASON, OTAKI, N.Z.

SYDNEY, 20TH MARCH, 1901.

EDITORIALS.

FEDERATION FOR MEDICAL DEFENCE.

◆

A CORRESPONDENT in our January issue asks the pertinent question—"Why should there not be federation for medical defence?" The subject is one which merits the serious attention of the profession in Australia, and it is to be hoped that it will be discussed at the Inter-State Congress next year. There can be no doubt but that the number of medical men in Australia is increasing out of proportion to the increase of the general population. Not only is there a regular influx of doctors from various parts of the world, but the medical schools in Australia continue to turn out an increasing number of graduates. This is inevitable. The conditions of medical practice here are as yet more favourable, at least for young men, than they are in older countries, and the local graduates, with few exceptions, all settle in Australia. Nor is there at present any demand for protection against outside competition The day, which the medical protectionist may dream of when the Federal Parliament will be asked to impose a poll-tax on medical adventurers from abroad, bent on exploiting Australia, and jumping other men's claims, is very far, indeed, in the future.

The true interest of the profession in Australia at the present time, lies in consolidating its ranks. Everyone with proper qualifications should be allowed to enter the ranks, only, as Kipling says: "They are to play the game, and abide by the rules." Of course, these laws include all the recognised laws of medical ethics, but in addition to this, the attempt should be made to enforce certain necessary rules for the regulation of the medical contract system that obtains here. The most important points to be insisted upon are:—

I. A standard rate for all contract practice in Australia. This rate should not be less than a pound per member per annum. To attend a man and his family for a year for less than this is merely submission to sweating, and the profession have been suicidal in permitting anything less than this to be the irreducible minimum.

II. A standard wage limit for contract practice The limit of £200 income, fixed by the profession in New South Wales is a perfectly fair one.

III. The refusal to recognise any association or proprietary company that seeks to employ medical men as their paid servants, and to make profit out of their services.

IV. The strict ostracism *all over Australia* of the men who shall betray the interests of the profession. This is undoubtedly a measure which would press hardly on some of the less fit, who are unable to maintain themselves on the level of recognized practice, and are tempted to become—it may be unwillingly—the instruments by which the financial status of the profession is reduced, but the welfare of the few must be sacrificed to the interest of the many. This professional boycott has been used very successfully in New South Wales. There is no reason why it should not be employed similarly all over Australia. The man who sins against his brethren in Queensland, should find the fact facing him if he migrate to Victoria or Western Australia. There can be no possible objection to such a system, provided that all newcomers into the profession are made to understand the rules they are expected to comply with. The motto should be—"Room and welcome for all, as long as the solidarity and honorable traditions of the profession are adhered to."

It is not Utopian to contemplate such a federation in the medical world Nor should the practical difficulties of such a proposal be insuperable, and the next Congress would do well to set itself seriously to formulate means to carry out the task.

A CENTURY'S PROGRESS IN DENTISTRY.

THERE is ample evidence that dentistry was in vogue thousands of years ago. Critical examination of the teeth of some mummies of the better class has disclosed the fact that 4,000 years ago, dentistry had obtained a high state of perfection, judging from the character of the stoppings that were said to be discovered in the teeth.

[Though this assertion has not been fully authenticated, there is no doubt that the Phœnecians, Ancient Greeks, Romans and Gauls, obtained much benefit from practitioners in denistry of the period]

Amongst the victims discovered in the ruins of Pompeii, numerous examples were discovered of admirably constructed false teeth, some set in metal plates, others very skilfully interposed between and secured to, other teeth. Thus is proved that the art and science of dentistry was of ancient origin, had been lost, and again in recent times has been revivified, and in these modern days, brought to a state of perfection.

Early in the present century dentistry was practised by charlatans, and to a large extent, by individuals who adopted it as a means of adding to their income in excess over their ordinary means of making a living. Thus the blacksmith, barber and watchmaker, were the dentists of every village and country town.

It must be understood that the drawing of teeth constituted the dentistry of those days, and muscular strength, as well as a certain amount of manual dexterity rather than anatomical knowledge or surgical skill were the elements of success, and those practising this primeval art, in order to give themselves kudos and obtain notoriety, adopted the style and title of *Surgeon Dentists.* Thus was the position jumped by the uneducated and the charlatans, and even up to the present date unqualified practitioners in dentistry have, without discrimination or distinction, appropriated this designation. About 1840, attention was attracted to the unsatisfactory state of affairs regarding dentistry, both in England and America. In each of these countries, strenuous exertions were made to qualify, elevate and raise in public estimation those who practice this profession. About this time in England, dentistry may be said to have been divided into three sections:

1st, Those who wished that all dentists were fully qualified surgeons;
2nd, Those who wished them to attain only a certain amount of surgical knowledge, and thus to be subordinate to fully qualified medical practitioners;
3rd, Those who hoped that the dentists should be altogether disassociated from surgeons, and obtain diplomas from a college of their own.

In England preference was given to a full surgical and medical education for dentists, and a dental diploma to be granted by the College of Surgeons, England. This raised difficulties, especially regarding the mechanical requirements which dentistry exacted, and which would have to be added to the surgeon's qualifications, and necessarily would entail a very protracted period of education. The scheme of partial surgical instruction did not enable the candidate to register as a qualified practitioner, and both schemes entailed considerable hardships on provincial aspirants, in consequence of the classes and examining boards being in London.

While in England the College of Surgeons was harassing and delaying the progress of dentistry with useless exactions and absurd and prohibitive regulations, a more liberal and progressive spirit prevailed in America, and in 1839 dawned the first beneficent attempt to alleviate suffering humanity by the organisation of the first dental college in the world in the City of Baltimore. Here, without any unnecessary exactions as to medical or surgical qualifications, a sure foundation of surgical or pathological knowledge was founded for the students, and followed up by careful instruction in the various mechanical processes. As a further step in the progress of dentistry, *The American Journal of Dental Science* was established, and in 1840 further proofs of the vivifying forces operating at this period were forthcoming, when the same pioneers of progress who started the College and Magazine in 1839, associated themselves with others of like spirit, and on 18th of

August. 1840, met in New York and organised the American Society of Dental Surgeons, the first dental society of the century, the prototype of the multitude of dental societies which exist at the present day, all of whom aspire to surround the art and science of dentistry with honour and respect.

In 1841 was enacted the first law regarding dentistry, then after a long pause of over 25 years another act was passed in New York in 1868. Tardy England enacted a law in 1878, and other countries at subsequent dates. All these laws were for the public good, and with the object of protecting the public against unqualified and incompotent practitioners. As usual in such cases, much opposition—chiefly prompted by the unqualified and ignorant pretendors—was offered, but the measures passed, much to the benefit of the long-suffering public.

The world owes a debt of gratitude to the pioneers of dentistry with reference to anæsthetics.

The introduction of ether is due to Dr. Morton, a dentist of Boston, who brought it into practical use, though some authorities give the credit of its first being utilised by Dr. Horace Wells, of Hartford, U.S.A.

The position of dentistry at the end of this century is unrivalled amongst contemporary sciences and arts, and compares most favourably with medicine and surgery.

Though these other branches of the great healing art have made great strides in the same space of time, yet can it be said that for system and well-rounded development, no other science has outrun dentistry in progress? Medicine and surgery, unlike mathematics, are not exact sciences, but of all branches of surgery, there is probably none in which the realisation of the ideal has been so nearly secured as in dentistry.

At the termination of 1900, the position attained by dentistry as an art and science is unassailable. Its shrine is surrounded by an army of enthusiastic and *indomitable* workers. Every source of science has been ransacked for contributions to secure such perfection as can possibly be attained, all the latest improvements in antiseptic surgery, electricity, metallurgy, and chemistry has contributed towards the perfection that dental science has now attained. To show the advances made in dentistry up to the present date, we may state that for instruction in the art and science of dentistry, there are now 15 colleges in England, 56 in America, one each in Victoria and Tasmania, and in March this year will be inaugurated a dental school in association with the University of Sydney.

PUBLIC HEALTH.

HIS Excellency the Governor of Queensland, with the advice of the Executive Council, has, in pursuance of the provisions of "The Health Act of 1900," been pleased to appoint John Thomson, M.B, Wilton Wood Russell Love, M.B., David Hardie, M.B., Theodore Oscar Unmack, and George Valentine Hellicar to be a Central Board of Health.

Precautions are being taken in all the States to prevent the introduction of bubonic plague from South Africa.

UNIVERSITY AND HOSPITAL INTELLIGENCE.

SYDNEY UNIVERSITY.

THE Senate of the University has conferred the degree of Bachelor of Medicine upon Messrs. J. B. D. Barton, R. C. H. Foster, A. H. Macintosh, and V. W. Savage. The following degrees were conferred in *absentia*:—Bachelor of Medicine, Arthur Christian Holt, B.A.; Master of Surgery, Edward J. Savage, M.B.; Bachelor of Medicine and Mastery of Surgery, Roger W. MacCredie. The Senate has accepted, with regret, the resignation of Dr. J. C. Cox from the office of lecturer in medicine. Dr. W. Camac Wilkinson has been appointed to fill the vacancy.

SYDNEY HOSPITAL.

The following changes in the resident medical staff of the Sydney Hospital have been made, viz.:—C. V. Bowker, M.B., Ch.M., to be medical superintendent *vice* Dr. M'Clelland (resigned); H. S. Stacy, M.B., Ch.M., to be resident pathologist; and A. G. Corbin, B.Sc., M.B., Ch.M., to be senior resident medical officer.

ADELAIDE HOSPITAL.

It is believed that the long-standing Adelaide Hospital trouble has been settled. Dr. Verco and Dr. Hayward, two of the old staff, returned to the hospital recently.

His Excellency the Governor in Council has been pleased to accept the resignation of William Ramsay Smith, Esq., M.B., M.S., as Honorary Physician at the Adelaide Hospital, as recommended by the Board of Management of that Institution.

NAVAL AND MILITARY INTELLIGENCE.

QUEENSLAND.

APPOINTMENTS.—To be Captains in the Army Medical Corps, Queensland Defence Force (land): James Gillies, January 24th, 1901; Harold John Hutchens, February 20th, 1901.

Resignations.—As Captains of the Army Medical Corps, Queensland Defence Force (land); John G. B. Gowlland, January 18th, 1901; Stanley J. D. Read, February 22nd, 1901.

Retired List.—Defence Force Division of the Queensland Defence Force (land); Captain A. E. Salter, M.B., A.M.C., Q.D.F.

VICTORIA.

Appointments.—Charles Alfred Stewart, Staff-surgeon, to be Fleet-surgeon, Victoria Naval Forces. Reserve of Officers.—Medical Staff Militia; James Harold Patterson, M.B., to be Lieutenant on probation. Victorian Contingent for service in South Africa.—James Harold Patterson, M.B.; Herbert Appleton Palmer, M.B., to be Lieutenants, Medical Staff.

OBITUARY.

THOMAS NICHOLAS FLOOD, M.B. 1884, B.Ch. 1885, M.D. 1886 Univ. Dubl., who practised at Croydon, Q., for the last 14 years, died recently.

ROBERT HUNTER, L. & L. Mid. R.C.P. Edin. 1873, L. & L. Mid. R.C.S. Edin. 1867, died in Sydney on February 24th, aged 59 years.

WILLIAM BOND TAYLOR, L. & L. Mid. R.C.S. & P. Edin. 1876, died at Bourke, N.S.W., from heat apoplexy on February 18th.

MEDICAL NOTES.

DR. T. CARSON FISHER, on the eve of his departure from Bowral for Europe after 11 years' residence, was presented with an illuminated address, a purse of sovereigns, and a travelling bag.

Dr. W. Camac Wilkinson, of 213 Macquarie Street, wishes us to announce that he is now practising as a consultant only.

CHANGE OF ADDRESS, ETC.

BURFITT, Dr. W. F., late of the P. A. Hospital, Sydney, has commenced practice at Glebe Point, near Sydney.

DAVIES, Dr. A. J., has removed from Beaudesert, Q., to Hill End, N.S.W.

FINLAY, Dr. W., has removed from Armadale to Tungamah, Vic.

FOULDS, Dr., **BASIL** a recent arrival, has succeeded to Dr. T. C. Fisher's practice at Bowral, N.S W.

HOWSE, Dr. N. R., of Orange, N.S.W., has returned from South Africa, where he had been on active service with the N.S.W. Army Medical Corps.

HUGHSTON, Dr., has taken Dr. MacGillivray's practice at Hamilton, Vic.

MACGILLIVRAY, Dr., late of Hamilton, Vic., has succeeded to Dr. W. R. Graham's practice at Broken Hill, N.S.W.

MCARTHUR, Dr. A. N., a recent arrival, has settled at Camperdown, Vic.

MCGOWAN, Dr. A. G., late of the Ballarat Hospital, has taken Dr. Corry's practice at Mt. Egerton, Vic.

MINCHIN, Dr. E. J., has removed from Port Wakefield, S.A., to Portarlington, Vic.

NEWCOMBE, Dr. F. W., has commenced practice at Warrnambool, Vic.

PENNY, Dr. H. J., formerly of Victoria, has settled at Scottsdale, Tas.

PONDER, Dr. C. F., has removed from Hillston, N.S.W., to Mathinna, Tas.

PRENDERGAST, Dr. J. J., has removed from Latrobe to Kelly's Basin, Tas.

ROSENFIELD, Dr., has succeeded to Dr. Malcolmson's practice at Port Melbourne, Vic.

SPRING, Dr. M. A., has removed from Campbelltown, Tas., to Traralgon, Vic.

WATKINS, Dr. S. C., has purchased the practice of Dr. Kingsbury, and has resumed the practice of his profession at Katoomba, N.S.W.

WHITE, Dr. D. O., has removed from Foster to Birregurra, Vic.

WILSON, Dr. J. S., formerly of Tamworth, has succeeded to Dr. Freyer's practice at Campbelltown, N.S.W.

MEDICAL APPOINTMENTS.

The following Medical Appointments are announced:

Butler, Dr. G. H., to be a member of the Southern Tasmanian Board of Dental Examiners.

Cargill, William Duthie, M.B. to be Acting Medical Officer at Roma, Q., Officer during the temporary absence of the Medical Superintendent.

Chessons, Herbert, M.R.C.S. Eng., L.R.C.P. Lond., to be Assistant Medical Superintendent of the Hospital for the Insane at Goodna, Q.

Creed, Hon. J. M., M.R.C.S., to be a trustee of the Public Library of N S.W.

Dods, Joseph Espie, M.B., B.S., &c., to be Acting Health and Medical Officer at Brisbane; also Acting Visiting Surgeon to the Prison at Brisbane, the Penal Establishment at St. Helena, the Fortitude Valley Police Gaol, the Dunwich Benevolent Asylum, and the Lock Hospital at Brisbane, during Dr. Wray's temporary absence on leave.

Finlay, W., M.D. to be Officer of Health for the Shire of Tungamah, Vic.

Fox, J. R., M.B., to be Public Vaccinator for Stawell, Vic.

Gmelin, O.F., M.D., to be Officer of Health for the Shire of Eltham, Vic.

Humphry, Ernest, M.R.C.S.E., &c., to be Visiting Medical Officer to the Townsville State Orphanage, Q.

Jamieson, Sydney, M.B., Ch.M. Edin., L.R.C P., to be lecturer on Pathology, at the University of Sydney.

Jones, Dr. W. W. S., to be a Vaccinator for Glamorgan, Tas

Lonergan, Dr. T. J., to be Officer of Health to the Southern Cross Local Board of Health, W.A.

Minchin, E. J., L.R.C.P., to be Public Vaccinator for Portarlington, Vic.

Penny, Dr. H. J., to be a Vaccinator for Scottsdale Tas.

Pound, Charles Joseph, F.R.M.S., to be Bacteriological Expert for the purposes of "The Health Act of 1900" in Queensland.

Praagst, G. D. M.B. to be Public Vaccinator for Murchison, Vic.

Prendergast, Dr. J. J., to be a Vaccinator for Kelly Basin, Tas.

Pring, Arthur, L.R.C.P. Lond., to be Medical Officer at Beaudesert.

Read, Clarence, M.R.C.S, L.R.C.P., to be Hon. Medical Officer North Shore Hospital, Sydney.

Roe, J. M., M.B., to be Medical Officer at Mareeba, Q.

Skinner Dr. G. H., to be a Vaccinator for Gormanston, Tas.

Spring, W.A., M.B., to be Officer of Health for the Shire of Traralgon, Vic.

Strahan, E. A., M.B., to be Public Vaccinator for Korumburra, Vic.

Thomas, G. H. W., M.R.C.S., to be Medical Officer at Chillagoe, Q.

Trenow, Nigel Alan Allison, L.R.C S. Irel., L.S.A. Lond, to be Medical Officer at Croydon, Q

Wilkinson, W. C., M D., to be Lecturer on Medicine at the Sydney University.

The following medical appointments to the New Zealand Sixth Contingent are announced:—

O'Neil, Surgeon, Eugene J. (late House Surgeon Dunedin Hospital)

Purdy, Surgeon Captain John S. (late partner of Dr. James R. Purdy, Lower Hutt.)

Sherman, Surgeon-Major (late of Marten)

Sailed from Wellington, January 26th. This contingent will touch at Sydney.

HUDSON'S "EUMENTHOL" JUJUBES (Registered) are a Gum Jujube containing the active constituents of well-known Antiseptics, Eucalyptol, Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-Borate of Sodium, etc., and exhibit the antiseptic properties in a fragrant and efficient form. Sold by all chemists, tins 1s. 6d. Are Antiseptic, Prophylactic, reduce Sensibility of Mucous Membrane.

Mr. W. A. Dixon, F.I.C., F.C.S, Public Analyst of Sydney, after making exhaustive tests, says: "There is no doubt but that "Eumenthol" Jujubes have a wonderful effect in the destruction of bacteria and preventing their growth. . . . I have made a comparative test of "Eumenthol" Jubjues and Creasote, and find that there is little difference in their bactericidal action."

TRAINED MALE NURSE seeks engagement in mental or ordinary medical cases. Has had considerable experience in mental nursing, and is accustomed to travelling with patients to Europe and in the Australasian states. Unexceptional testimonials. References kindly permitted to Drs. F. N. Manning, Jarvie Hood, W. E. Warren, T. S. Dixson.

Address: R. T. O'NEILL,
70 Crown Street,
Nr. William St.
(Late 17 Leicester St., Sydney.)

REVIEWS.

MANUAL OF PHYSIOLOGY. By G. N. Stewart, M.A. D.Sc. M.D. (Edin.), D.Ph. (Camb), Professor of Physiology in the Western Reserve University, Cleveland. Fourth Edition: Bailliere, Tindall, and Cox, London; L. Bruck, 15 Castlereagh Street. Price, 16s.

The fact that this work has attained to the dignity of a fourth edition is in itself no mean proof that it meets the requirements of the class to whom it appeals. As a text book for students, we can with every confidence recommend it. As a work of reference for the busy, general practitioner, it will be found of great service, as the chapters and text generally are so arranged that a moment's glance into the pages of the book will reveal the information needed, on some point of importance that one may desire to refresh the mind upon.

The diagrams and letterpress are all that one could wish for, and we feel sure that the same measure of success and popularity will meet this as all the other editions of this important work.

MIKULICZ'S CONSERVATIVE TREATMENT OF TUBERCULAR JOINT DISEASES. By Neale. Translated by Mr. C. W. Cathcart, F.R.C.S., Senior Assistant Surgeon, Royal Infirmary, Edinburgh. Published by E. & S. Livingstone.

Nowadays, when most surgeons appear to be vieing with one another in the devising of new operative measures for all the ailments that flesh is heir to, it is refreshing to find that there are still some who consider conservative methods worthy of a trial, and who meet with a large measure of success in their efforts. The greater portion of this work is taken up with a very full and clearly written description of the methods of treatment of tubercular joint affections by means of iodoform-glycerine, peri, and intra-articular injections, together with Bier's treatment by venous congestion.

The wonderful success met with by the use of these methods, both singly and combined, makes very pleasant reading, and should encourage practitioners to give them a full trial before resorting to the graver surgical operative measures of excision and amputation.

The translation has been admirably made by Mr. Cathcart, and the lucidity of description is particularly pleasing.

We can strongly recommend this book to our readers, as we feel assured they will gain much useful knowledge therefrom upon one of the commonest and most difficult pathological conditions they are called upon to treat.

A TEXT-BOOK OF PRACTICAL OBSTETRICS, by Egbert H. Grandin, M.D., Gynæcologist to the Columbus Hospital; Consulting Gynæcologist to the French Hospital, etc., etc.; with the collaboration of George W. Jarman, M.D., Instructor in Gynæcology in the Medical Department of the Columbia University, late Obstetric Surgeon to the New York Maternity Hospital, etc., etc Third Edition, revised and enlarged. Philadelphia: F. A. Davis Company, Publishers. 1900.

The authors present this work to the student and practitioner as a reliable guide to the practice of obstetrics. Its aim is mainly clinical, anatomy and pathology being introduced only when essential to the understanding of the subject.

The opening chapters on anatomy and embryology are excellent, the style being clear, and the subject presented in an easy form. The mechanism of labour and its clinical course receive a full and lucid exposition, not too much burdened with detail.

The Management of parturition is the subject of a large portion of the work, and the authors have been particularly attentive to the management of normal labour. Many points in their treatment we like very well. We would thank them for reminding the accoucheur that in making a vaginal examination it is not desirable to fumble blindly from the perineum forward, carrying perhaps fæcal matter from an involuntarily acting bowel; also for insisting that frequent examination means frequent exposure of the patient to risk of infection.

From some points in the programme of management, however, we must dissent. We do not like the method adopted for preserving the perineum. The rectum, as is admitted in this work, is a passage very difficult to render aseptic—we should say practically impossible. What, then, are we to think of the following plan of "preservation?" The old style of "supporting" is condemned—without even a description—which is a little unfair to Playfair and other advocates of a method of relaxation that is frequently practised with success, and is very different from direct pressure. We quote from the text. "The thumb applied to the head, and if need be, the index finger inserted into the rectum, in order to enable extension to be of the most gradual type, is the proper way to deliver the head, *under normal circumstances.*" (The italics are ours). Stretching of the muscles of the pelvic floor should be avoided, "as it leads to spasm of these and increased uterine action." Now, let us compare these directions with the accompanying photo-engraving. There we see five gentlemen, deeply engrossed in the conduct of a *normal* labour. The principal is "preserving" the pelvic floor. For this end he has had his patient put in the lithotomy posture—knees flexed, thighs widely abducted. Here, we should say, is a direct invitation to rupture, as the posture places the perineum on the stretch, and that at the very stage of parturition when relaxation is urgently required. The operator's index, plunged into the rectum, "to press on the chin," does not much mend matters: it adds the complication of a soiled finger to the finishing strokes of his management, for in a later photograph of the series we observe the digit removed from the bowel, and applied, (seemingly straight away), to the escaping neck of the fœtus, closely in contact with the vaginal orifice.

Why all this ado about a *normal labour*, which any well-instructed nurse, if she only keep her hands off, can conduct with efficiency?

For the rest, the teaching of the book is sound enough; complicated unnecessarily at times, however, by cross references, as when for instance, to find the treatment of a breech case, or an ante-partum hæmorrhage, we are referred to the other end of the work, and are poorly helped by an imperfect index. There is a curious tendency, also, to the undue exaltation of detail. Thus, in one photograph we have an interesting group of five gentlemen; two are actively engaged in wiping the eyes of the *nouveau né*, two stand by to render assistance, and the fifth anæsthetises the mother. In another, we find two operators fully occupied in the necessary, though scarcely intricate, task of "dressing the umbilical cord." This is truly, "but a half-penny worth of bread to an intolerable deal of sack."

For the work generally, however, we would say that it is good. Many men, many minds. The authors have the power of putting old facts in an interesting way, and the book is well worth reading. The publishers part, as their name would lead us to expect, is most excellent. The type is clear, the text well displayed, the volume easy to handle, and the illustrations clearly executed. American publishers seem to place their writers in these respects in a very enviable position.

The History of Ancient Gynæcology. By W. J. Stewart McKay, M.B., M.Ch., B.Sc., Senior Surgeon to the Lewisham Hospital for Women and Children, Sydney; Fellow of the British Gynæcological Society, etc., etc. London: Baillière, Tindall & Cox. 1901. Sydney: L. Bruck.

This is a history of gynæcology in ancient times, beginning with the earliest documents of Egypt, and the performance is certainly a credit to the industry of the author. It is a discreditable fact that the history of medicine is utterly neglected in the curricula of the British schools. We could easily afford to drop some of the *ologies* with which the unfortunate undergraduate of to-day is loaded, in favour of a short course of lectures on the history of our noble art. *Vixere fortes ante Agamemnona*; but we are so primed with *special* knowledge nowadays, that our perspective is bound in the puny limits of the last fifty or a hundred years.

It is hopeful to find that a revival of interest in the past is commencing to show up; and, as a contribution to this, the present work on the special department of diseases of women is welcome. The reflection that there is nothing new under the sun is forced upon the reader again and again as he comes upon some ancient Greek or Roman surgeon giving, say, a very good account of laceration of the cervix as studied through the speculum, or telling of successful hysterectomies for prolapse of an extreme type. The uterine sound, it appears, is as old as Hippocrates; the speculum claims an even greater antiquity, twenty varieties being in use by the ancient Hindus. Among the latter oöphorectomy was already a success; the Cæsarean section was practised by the Jews and the Romans, and "Praxagoras advised incision into the gut to allow the fæces to escape in cases of volvus and intussusception." By the same token, be it not forgotten that the successful Cæsarean has an established position among the swarthy operators of the Dark Continent, while "ovariotomy can be successfully carried out by some of the native tribes of Australia."

We rise from a perusal of the volume with a pleasure like that which one derives from the "fine confused feeding" of a Scotch haggis. The sensation is satisfactory, but the recollection is hasy; and we regret that there is no index at the end of this large volume of 300 pages to enable us to renew our retrospective pleasures *seriatim*. In the second edition we shall expect a copious index. The work is to be commended to all who have an interest in surgery or gynæcology.

Uterine Tumours: Their Pathology and Treatment, by W. Roger Williams, Fellow of the Royal College of Surgeons. London: Baillière, Tindall, and Cox. Sydney: L. Bruck.

The author of this work conceives that the "tangle of disjointed facts, which passes for medical science in this country," seldom rises above the level of "un-unified" knowledge of Herbert Spencer's classification, knowledge of the lowest kind, consisting of mere isolated facts; and he reviews his chosen field in this work with the "Eye of Philosophy."

It is an undertaking of consequence, and Dr. Roger Williams has produced work of deeper interest than the ordinary text-book, and matter that will amply repay the reader for a careful perusal.

The varieties of uterine neoplasm and their relative frequency are reviewed in a short opening chapter; then the development and life history of the uterus are fully described. The histology of the uterus in relation to the pathogeny of new growths is an interesting study, and is presented in a very readable way.

Then follows an account of the "biology" of Myoma, the mode of increase, influence of menstruation, pregnancy, and the climsetric; and a full account is given of modern methods of treatment. Cancer and sarcoma are treated on the same lines.

The volume is a handy one, well printed in good type, and supplied with a useful index.

(For other books received see page 109.)

Just Published,

THE "DIRT EATING DISEASE,"

or

ANKYLOSTOMIASIS.

Connected account of the Disease. By Charles Allan Brough, L.L.B.., B.S., Etc. Member (by examination) of the Medico Psychological Association of Great Britain and Ireland.

Price.—TWO SHILLINGS. Post Free.

L. BRUCK, Sydney; and MELVILLE & MULLEN, Melbourne.

The Thermophore.—This is an invention for the generation and retention of heat. Is has many useful applications, amongst which may be mentioned the keeping warm during night of infants' food. It also takes the place of, or rather will supersede the old hot water plate for meals. It is applied to footwarmers and hot compresses of various sizes and shapes, one of the most useful forms to surgeons being a long rubber tube like a bicycle tyre, which may be arranged to surround a patient on the operating table, as a prevention of shock. In the case of the rubber goods, they are simply filled with acetate of soda in coarse powder, and hermetically closed. On being used, the whole apparatus is placed in a suitably sized vessel of boiling water and allowed to boil for a certain number of minutes, according to size. Thus the salt is liquefied and it is during the process of re-solidification that the heat is evolved, which is utilised in the various ways mentioned. In the case of the foodwarmer, the acetate is contained in a hollow metal jacket, in the centre of which is placed the bottle of milk. The whole is contained in a case of some insulating material, and will keep at a temperature of from 55 to 59 degrees Cent. for from six to ten hours. This is a German invention and is being introduced by Mr. H. Dahms, of 150 The Strand, who will be afforded an opportunity at the annual meeting of the Branch of giving a demonstration of its capabilities.

The Medical Benevolent Fund.—Dr. P. B. Stewart (Casino) has forwarded a year's subscription.

H. L. Maitland,
Hon. Secretary.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

THE following persons have been duly registered as legally qualified medical practitioners in their respective states :—

NEW SOUTH WALES.

Bartoo, John à Beckett Darvall, M.B Univ. Syd. 1901.
Bowie, John Tait, M.B. *et* Mast. Surg. Univ. Glasg 1896.
Cameron, Donald Allan, M.B Univ. Syd. 1900.
Cox Harrie, M.B. Univ. Syd. 1900.
Forster, Redmond Clarence Hall, M.B. Univ. Syd. 1901.
Graham, Mabel Jessie, M.B. Univ. Syd. 1900.
Gullett, Lucy Edith, M.B. Univ. Syd. 1900.
Hart, Basil Lloyd, M.B. Univ Syd. 1900.
Heggaton, Rupert Dufty, M.B. Univ. Syd. 1900.
Holt, Arthur Christian M.B. Univ. Syd. 1901.
Jones, Philip Sydney, M.B. Univ. Syd. 1900.
Longhnan, Edmund Brennan, Lic 1867, Lic. Midwif. 1868, R. Coll. Surg. Irel; Lic. K Q. Coll Phys. Irel. 1868.
Macintosh, Alexander Hay, M.B. Univ. Syd. 1901.
McCredie, Robert William, M.B. Univ. Syd. 1901 ; Ch.M. Univ. Syd. 1901.
Pugh John Hopkins, Lic. Soc. Apoth. Lond. 1874 ; Mem R. Coll. Surg. Eng 1877.
Romeo, Giuseppe, M D. Univ. Naples 1894.
Savage, Edward Joseph, M.B. Univ. Syd. 1901.
Savage, Vincent Wellesley, M.B Univ. Syd. 1901.
Schuette, Rudolph Wilhelm Ludwig, M.D. Univ. Leipzic, 1893; State—Exam. Certif. Leipzic, 1897.
Verco, Sydney Manton, M.B. Univ. Syd. 1900; M.Ch. Univ. Syd. 1901
Weston, William Henry, M.D Univ. Southern California, U.S A. 1895.

Additional Qualification Registered :

Campbell, Alfred, Fell. R. Coll. Surg. Edin. 1900.

NEW ZEALAND.

Chilton, Charles, M.B., Ch.M., Univ. Edin. 1898.
Clay, David Lloyd, M.R.C.S. Eng., L.R C.P. Lond.

QUEENSLAND.

Cory, Guy Chamberlyn, Lic. Soc. Apoth. Lond. 1886, Mem. R. Coll. Surg. Eng. 1886.
Jackson, John William, M.B., M.Ch. 1895, Univ. Syd.
McDonald, Jas. E. Fancourt, M.B 1899, Univ. Melb.
McLean, John Barr, M.B. 1900, Univ. Melb.
Savage, Edward Joseph, M.B., M.Ch. 1900, Univ. Syd.

SOUTH AUSTRALIA.

Auricht, Johannes Friedrich Theodor, M.B. Melb. 1890.
Kress, Daniel Hartmann, M.D. Michigan, U.S.A., 1894.
Myles, William Saunders, M.B. B.Ch. B.A.O. Dub. 1899.

VICTORIA.

Bernard, James Fox, M.B. Melb. 1900.
Groves, Wesley Rainsford, M.B. Melb. 1900.
Mangia, Vincenzo, M.D. Naples 1885.
McArthur, Arthur Norman, M.R.C.S. Eng. 1894, L.R.C.P. Lond. 1895.
Newcombe, Frederick William, L.R.C.P. *et* R.C.S. Edin. *et* L.F.P.S. Glas. 1900.
Skewes, Samuel Grenville, M.B. Melb. 1900.
Ulbrich, Waldemar Harold, M.B. Melb. 1900.

WESTERN AUSTRALIA.

Brade, Gerald Francis, M.B. Syd. 1899.
Officer, Edward Albert, M.B. Melb. 1897, B.S. Melb. 1899.

NEW SOUTH WALES.

LEGALLY QUALIFIED MEDICAL PRACTITIONERS UNDER CLAUSE 8, ACT NO. 70, 1900, PROVIDING FOR THE REGISTRATION OF UNQUALIFIED PERSONS IN CERTAIN CASES.

Bourchier, Joseph Gabbett.
Krueger, John.
Leonard, Benjamin Adam.
Quinn, Roderick.
Roberts, Griffith Hobley.

The name of *William* Henry Monkhouse, which was gazetted on 9th January, 1901, should be *George* Henry Monkhouse.

BIRTH AND DEATH.

BIRTH.

SPARK.—On the 15th February, at Stockton, N.S.W., the wife of E. J. S Spark, M.B. *et* Ch.M., of a son.

DEATH.

HUNTER.—On the 24th February, at 22 Jamieson Street, Sydney. Dr. Robert Hunter, aged 59 years.

NEW SOUTH WALES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

NOTICE OF MEETING.

THE Annual Meeting of the Branch will be held on Friday, 29th March, 1901, at the Royal Society's Room, at 8.15 p m.

Business :—Report of Council ; President's Address ; Election of Council ; Report of Investigation Committee ; Confirmation of By-laws of Investigation Committee.

Nominations for Membership :—Drs. H. T. W. Brennand, A. L. Levy, W. Begg, H. Sheldon, Harriett E. Biffin, J. W. Harvison, Wm. Ekin, V. A. Smith, W. F. Burfitt, W. J. Stewart McKay.

G. T. HANKINS, Hon. Secretary.

IODIDE OF HYDROGEN—NON-IRRITANT IODINE.

THIS valuable element has been brought before our notice in the preparation, Syrupus Acidici Hydriodici (Gardner), containing 1·28 per cent. of absolute H.I. The preparation has a history, as has also the originator, Mr. R. W. Gardner. Although we don't advocate the applauding of strictly proprietary preparations, we gladly accord esteem where merit is in evidence. It is only proper to state that Mr. R. W. Gardner presented the only successful formula of a stable preparation of this element to the medical profession as far back as 1878, leaving the result of his investigations, and manipulation of this delicate and sensitive chemical combination (Iodide of Hydrogen) in their hands, trusting to their sense of appreciation for his reward.

Some authorities on the subject, to wit—John V. Shoemaker, M.A., M.D., LL.D., in *The Medical Bulletin*, August, 1889 ; Henry M. Field, M.A. M.D., LL.D., in *New England Medical Monthly*, October, 1890 ; W. Gill Wyllie, M.D., in *New York Medical Record*, 10th May, 1879 ; J. Burney Yeo, M.D., F.R.C.P., in *Manual Medical Treatment* ; have stated that there is abundant evidence, from clinical observation, that this form of Iodine (Iodide of Hydrogen) is more active, and in many respects superior to the alkaline Iodides. The base is entirely different, and has none of the caustic or depressing elements attributed to the alkaline Iodides.

The manipulation of the drug, by Mr. R. W. Gardner, has been popularised in the U.S.A. (and latterly in Great Britain) as a result of a ruling of the judicial committee of the World's Exposition, giving it the only award and medal, and subsequently the favourable criticism on the preparation by the leading American medical journals, where it is largely prescribed. Its uses are wherever Iodine is indicated. The formula is contained in Squires' and Martindale's handbooks.

MRS. E. H. ROBISON née MCEWEN, late of Prince Alfred Hospital Sydney, and Matron, Mudgee Hospital, ANNOUNCES TO THE MEDICAL FACULTY, that she (having lately returned from Dr. Otto Walther's Sanatorium for Consumptive persons at Nordrach, Black Forest, Germany) HAS ESTABLISHED A SANATORIUM upon similar lines AT LEURA, BLUE MOUNTAINS, New South Wales. Terms on application.

"LYNTON," LEURA.

AUSTRALASIAN MEDICAL GAZETTE.

ORIGINAL ARTICLES.

PRESIDENTIAL ADDRESS.

By W. H. Coutie, M.B., Ch.B. Melb., Sydney.

Read at the Annual Meeting of the New South Wales Branch of the British Medical Association, on 29th March, 1901.

◆

The report of the Council deals with the most important matters that have engaged the attention of the Branch and the Council during the past year. The members are to be congratulated on the success that attended the year's work. This to a very large extent was due to the untiring energy of our hon. sec., Dr. Hankins. He has not spared himself in any way, and his work on behalf of the Branch cannot be too highly praised. Dr. Crago, the hon. treasurer, did, as in the past, most excellent service. The *Gazette* committee, Drs. Knaggs, Crago, and Worrall, laboured incessantly in the management of the journal. The thanks of all the Branches are due to these members for their good work in connection with the paper that represents them all.

It is with extreme regret that the Council reports to you the death of so many of the members since the last annual meeting. The death of such members, most of whom were young, was a loss to the community and to the profession.

As regards medical legislation during the year, it is to be noted that two bills passed into law amending the Medical Act. These will save the public from much imposition and fraud. To Dr. Creed credit is due for the passing of the Inebriate Act. This should be one of the most beneficial Acts passed by the Parliament of this State. It will be curious to notice what effect the early closing acts will have. Legislation has made the work of the classes lighter and the hours of labour shorter, but unless there is a corresponding movement to raise their tone and culture this increase of leisure may contain a germ of danger.

One of the most notable events in the medical history of Australasia is the departure of a number of medical men for active service in South Africa and China. We all recognise that at great personal sacrifice they left these shores to serve their Queen and Empire, and we glory in it that they gained honour, not for themselves only, but also for the States from which they went. By the action then taken in sending contingents to the seats of war Australia proved itself to be an active working part of the British Empire, and in showing this the medical profession materially aided. That the New South Wales Army Corps and the medical men who represented this State did so well and managed so ably must be a source of pride to themselves and to Colonel Williams, as it is to us. The relatives of those medical men who died on active service have our deepest sympathy, as well as those of our number who lost some near and dear to them.

The membership of our Branch, though increasing, is not so large as it might and as it ought to be. There are sixty-eight Branches now in existence, and ours in point of numbers stands seventh on the list, and next to that of Montreal is the largest Branch outside of England.

In the *Australasian Medical Gazette* we have a most valuable asset. It is an important paper, and every effort should be made by all the Branches to increase its power and usefulness, for it is the organ and mouthpiece of them all. Its continued success is a matter for congratulation, though the amount paid to the editor and manager is not so large as could be wished. A fairly considerable sum is being accumulated to pay off the amount subscribed by some of our members to aid in its purchase.

Every medical man owes a duty to his profession, and part of that duty is to maintain its honour and dignity and interests. These should be to us sacred things. We hold them in trust for future generations. They form our kingdom, whose honour we should seek to maintain, and whose prestige we should endeavour to raise. Each individual member of this Association (I purposely here refrain from using the word Branch) ought therefore to make himself acquainted with the politics of medical life, not alone with those things that concern the general practitioner in his practice, but also with those other matters social and purely political, the neglect of which tends to lower the medical profession not only amongst ourselves, but also amongst laymen. Let each one realise that he holds a very real part of the honour of the profession in his hands, and that it is only by working in harmony that it can be maintained in its entirety. If from any cause a member cannot be an active worker, then let him support those who do work. It should not be necessary to advocate here such a vital principle as the domination by duty as opposed to the domination by purely personal motives, a doctrine based upon the good of humanity, and tending to the honour of the profession, as opposed to a doctrine of self aggrandisement. That so many medical men lose their health and their capacity for the enjoyment of life from the incessant worry and work consequent on active practice, is a matter for serious thought. for there is much that is avoidable underlying medical practice that tends to render the work, particularly that of the younger men, hard and distasteful to them, work that increases their burdens and shortens their lives. An Association such as this has for one of its objects the lessening of those burdens, and its usefulness and strength can be greatly enhanced by increasing its membership. The Council of this Branch is striving to do what it can to raise the *status* of the profession, and to remove as far as is possible those matters that are felt by all of us to be unfair, unjust and unprofessional. The Council, therefore, relies on the support of the members in carrying out these objects. In matters of detail neither personal interest nor outside influence will, I am sure, cause any feeling of unpleasantness among the members, for duty to the profession is beyond the range of personal feeling.

The medical profession differs from those other learned professions, the church and the law, in that there is no high preferment to be gained by its members. There are no prizes beyond what are earned by personal exertions. Years are spent in study before the time of earning arrives; then comes the worry, anxiety and constant toil entailed upon the general practitioner in work that is necessary, and in work that has a monetary value not only to the patient personally but to the community generally. This labour is not by any means assessed at its true value, nor its worth fully acknowledged by those outside the profession. The value to the community at large of the conscientious performance of professional work cannot be estimated. Not only do we feel it our duty to lessen the spread of disease, but also to prevent its origin. This we do as our duty to humanity and the State, and in doing so deprive ourselves of a large amount of remunerative practice. The great amount of work done professionally at the various institutions throughout the State by medical men, as well as the gratuitous work done privately, has a large monetary value, and it should be recognised in this as it is in every other department, that gratuitous assistance should only be given to the necessitous. It is a principle that aid is given to those only who require it. Why, then, should a different standard be adopted towards the medical profession? We are all willing to aid our fellow-man in his need, but should not be asked to treat the well-to-do in the same generous way. This matter is not seen by the community in its true light. Our hospitals are for the poor and for those who cannot get attendance within their own homes. The giving of a subscription should not entitle the giver to free treatment himself, or enable him to ask it for others who are not necessitous, for that is a perversion of the reason for giving. The subscription was given to help the poor and needy. It was given for charity's sake, and not to get benefits, nor to gain them, for those who are as well, or perhaps better, off than the giver. There are societies existing that for a small sum per year give all the necessary attendance to the less well-to-do, so that medical attendance is provided in three ways—by private practice, by benefit societies and by charitable work. Now, it should be recognised that the two first classes should be separated from the third by the broadly-defined line of need, and that those able to obtain medical assistance in either of the two first should not gravitate into the third.

A vast saving would accrue throughout the state if those able to get medical attendance from private practitioners or through societies were debarred from charitable relief. If the amount thus saved could be honestly calculated, it would carry conviction with it and with that conviction, reform. This is a matter that is one of monetary interest to the state and to charitable institutions, and no different principle should be adopted in dealing with it than an ordinary business one. If no change is effected in this matter, the abuse will become so great, and the burden so heavy, upon both these institutions and the State, that Parliament itself will be compelled to remedy the mischief by legislation. Much, too, might be saved both in money and labour by a well ordered scheme of organisation and concentration. There is no doubt, that, if it were found necessary, a class of private hospitals would soon come into existence that would meet all demands. Even as matters are at present, no patient should be admitted into any institution, receiving aid from the public or the government, for private treatment. An alteration in these matters would certainly tend to raise the independent spirit of the community. Charity to the poor is a blessing: charity to the well-to-do is a degradation, and warps the moral sense of the receiver.

The investigation committee, by the compilation of cases of abuse, extending over a lengthened period, will be able to collect evidence that ought to convince even an hospital committee; but these, it should be remembered. must be detailed, for general statements can never be convincing. It would be well for the members to communicate to the council or the committee the particulars of such cases as come under their notice. We must not forget that in the past there has been some fault on our own part in the admission into hospital of patients able to pay for private treatment.

Another serious question affecting the general practitioner is how to deal with the matter of contract practice. This is not of local interest only, but is one much debated in the old country, as every issue of the *British Medical Journal* testifies. The remedy is not to be found by each medical man having his own private list of contract patients, as this is decidedly objectionable, but by the profession insisting on a wage limit, and also by an extension of the principle of its own medical society, The S. and S. Provident Medical Association, and if possible by the connection of medical men with it, to the absolute exclusion of other societies not conforming to the principles determined on by the profession. It may be possible in the future for the S. and S. Provident Medical Association to see its way to grant sick pay and funeral expenses to those connected with it, and so make it all that the working classes require. Some societies now in existence have objects totally outside those of a Friendly Benefit Society, and one at least appears to be an agent by which some of its members seek to advance their public and political interests. It increases its membership by including a large number of the well-to-do in every rank of life, all of whom, without distinction, are entitled to claim medical attendance. This so-called patriotic society is made a successful one at the expense of the profession, for it is admitted that without giving medical attendance the society would not exist. At a recent conference held in Victoria the Australian Natives' Association took into consideration many questions quite beyond the functions of a benefit society. These questions included Imperial federation, municipal amalgamation, educational reform, horse-racing at branch anniversaries, the present unsatisfactory method of appointing justices of the peace, the compulsory purchase of land for closer settlement, the naval and military defence. "At length," I am now quoting from the *Argus*, "Mr. Peacock, the Premier, rose and seriously asked the conference to pause and consider the position it was drifting into. If the Association was going to attempt to reform everything on earth it would become the laughing stock of the whole community," and "they would soon be addressing the Imperial Parliament and telling them how to govern the world."

Amongst the subjects for reform set down for discussion that of the position and pay of their own medical officers was, of course, not included. That a society that considers itself a national one should only be able to exist by being a benefit society. is more than a reproach to the Australian native, and that it should oppress its medical officers by lowering their pay to a palpably unfair amount, and expect their services to be given to whomsoever chooses to join, is a blot upon Australia's name.

Other societies carried on for profit by companies or private individuals have been condemned in Great Britain, and here and in England so serious is this matter considered that it has been proposed to look upon association with medical aid societies as infamous conduct in a professional sense, and so render practitioners guilty thereof liable to have their names removed from the medical register.

This is the age of combinations, and the tendency everywhere is to the concentration of work and labour, so as to get the best results in the most effective way. This can be accomplished by the society established by the profession in New South Wales.

It may be a commercial way of looking at the question, but it must not be forgotten that medical attendance has a commercial value, as work has in every other calling. To those who cannot afford payment, aid is always forthcoming. Sympathy with the poor and suffering is part of our education, so that no class is, or ever will be, neglected.

In seeking to gain our ends we should avoid a waste of energy. In every movement of extensive character much is lost by many working in different ways to the same end. Let all the agencies in the different States unite their forces, then we shall gain all that is fair and all that is just, and we ask no more than that.

The medical aspect of Federation will, no doubt, so far as the community is concerned, be first seen in the administration of the Quarantine Service. A united scheme will secure that uniformity of practice and action that cannot exist under the present system.

Then, too, will probably cease the curious condition of a single State, contiguous to three other States, ignoring such a beneficial measure as vaccination, and so being a source of danger and expense to those that with much more foresight, have sought to protect their own population. Federation, too, may hasten the day when more active measures will be taken to stay the spread of infectious and contagious diseases, of which tuberculosis is, perhaps, the most important and urgent. Prevention is the most effective way of combating such affections.

Australia is in the favoured position of being isolated by long distances from other countries, but it must not be forgotten that if the means of communication continue to improve in the future as they have done in the past few years, our shores will no longer be distant from perpetual breeding grounds of highly communicative diseases. This does not refer to diseases of the human race only, but also to animal and plant affections. Some animals are now quarantined, but other living and dead things carry disease perhaps to a greater extent than we are in a position at present to know.

The study of animal and plant diseases and that of animal and plant carriers of disease is one not sufficiently investigated in Australia. The Federal Government might well further the study of these, not only for the sake of the health of the community, but also because of the pecuniary interests involved, both as regards the individual and the States themselves.

Now that Federation is an accomplished fact, what a splendid opportunity the Commonwealth has of building a capital which shall be a city of beauty and of delight, one worthy, not simply of the Commonwealth, but of the age in which we live. We hope to see a city spring into existence into the building and daily life of which shall be merged all that science has revealed to aid in man's higher development and his material comfort.

In the re-building of that portion of Sydney resumed by the State Government, and in the planning and construction of the capital, the medical profession should have much to say.

As the colonies are now united, are we in the future to have one distinctive Australian University, with local teaching centres, or are the State Universities to continue as at present? There is no question that the standard for the degrees granted by these Universities should be equal, and that standard high. To reach that end the teaching, too, must be equally high. These could be attained, and the degrees lifted into greater prominence by the establishment of an Australian University.

As so many important and common interests affect the profession in the Commonwealth, it becomes a question for consideration whether the branches of the British Medical Association should not have a federated council to decide on questions of polity, so that there would be the same principle running through the actions and decisions of the branches. This would increase our power and raise our status from a parochial into a national one.

The Medical Congress now held triannually might be changed into a gathering of the branches of the Association, as the branches now are sufficiently strong to carry on such a function, and it would bring us into conformity with the custom in Great Britain. Then, too, the parent Association might be urged to give us permanent representation on the Home Council, instead of one that is transitory, as at present, and which is more an honour to those chosen than a benefit to the branches themselves. Questions affecting our interests ought to be decided with a knowledge of local conditions. These cannot be fully known to English practitioners unless the representation of the branches is somewhat permanent in character, to enable the representatives to become acquainted with the situations existing in the colonies, and to fully know the wishes of the branches.

The laws relating to practice, the publication of medical advertisements, and literature of a dangerous class, as well as the sale of secret and fraudulent drugs, should be under the control of a common authority, and are matters that the Parliament of the Commonwealth should deal with.

In many ways, Federation could be the means of increasing our influence, knowledge, and power for the well being of the community, but, in this connection, I will ask you to consider one other matter only. Much would be gained by a definite and correct system of certification of diseases, and, as far as possible, a correct registration of all the causes of the illness from which each person dies. This could only be done by a certificate from the medical attendant direct to the registrar, and no burial should take place without the cause of death being accurately known. Should cremation become the custom in Australia, extreme care will require to be taken to ensure the cause of death being fully known.

We are beginning a new century and a new reign. Queen Victoria was one of the best and greatest of monarchs. Greatness, in her position, was one not simply of material power, but in her being and doing all that was good and right. Though a monarch, she ever bore herself as a woman, and as a good woman her influence was felt and will continue to be felt throughout the world. That King Edward and his Consort will maintain the high standard set by the late Queen we can be well assured.

It can be readily believed that the new century has more in store for the human race than was revealed in the one that has gone. Yet, looking back a century ago, a city like London would seem to us a neglected one. The streets were rough, uneven, and mostly unpaved and only dimly lit at night with oil lamps. Of sanitary methods there were hardly any. There were but few sewers and these of wood. A bath was almost an unknown luxury. There were no police in the streets and cabs and 'buses did not exist. The means of amusement were few, and those of culture fewer still.

As backward as the city itself were things medical. The student then had poor opportunities of study, only the bodies of those executed were legally available for dissection. The city churchyards were therefore robbed of their dead to supply the subjects needed. As these could not be preserved as they are now, the dissection was hurriedly and imperfectly done so that the knowledge of anatomy was mainly confined to the bones, joints, muscles, and arteries, and of these the knowledge was very incomplete. The veins and lymphatics were little noticed, and not much more was known of the nervous system. The structure of the brain even was not known, and it was generally looked on as an insensitive organ

Physiology was of course much more backward than anatomy, and it was not then taught as a separate subject. The functions of many of the organs were unknown, as well as the formation and action of most of the secretions. The chemistry of these as well as of the excretions not having been investigated, their morbid conditions could not well be recognised. Pathology was only begining to exist. Practically no instruments of precision were used in the diagnosis of disease. Auscultation and percussion were not made use of, and palpation rarely employed, and then not as we use it. There were no tests for poisons, and the microscope was of no real value. Little was known of the prevention of illness, though smallpox and scurvy were being combatted in that way. The overcrowding of public institutions was beginning to attract attention. Not only were the occupants crowded as to space, but each bed was most frequently occupied by several inmates, even as many as eight being sometimes placed in one bed. In these institutions there were no bath-rooms, and as ventilation was practically absent, and the drainage unattended to, the state of public institutions can be imagined. Knowing all this, the marvel is, not that treatment and the results were poor, but that in many cases they were so good as they were. We wonder at the classification and nomenclature of a century ago, but our own has proved almost equally faulty, and must be altered before medicine can take the place that belongs to it.

In the treatment of disease the greatest epochs are the introduction of chloroform and antiseptics, doubtless, to these another will be added in the future, the introduction of serum treatment, as yet in its infancy. The employment of trained nurses is too important a feature to be overlooked, but of course has to do with the carrying out of treatment rather than of treatment itself.

That we have advanced in our knowledge of healthy and morbid conditions is due not simply to clinical observation, but because knowledge has been gleaned from other sciences throwing light upon hitherto unknown problems. In applying the results of the labours of scientific observers in other branches to medicine we differ from our forefathers, and in this way have improved upon their methods.

By experiments, too, we have learnt much they did not know. We honor the man who sacrifices himself for his fellows, and on the roll of the past the name of many a man of medicine shines forth conspicuously in his effort to discover truth to benefit his fellow man. Much of what we know in physiology, pathology, and bacteriology and other branches has been derived from experiments carefully conducted on man and on animals. The functions and relations of the nervous system, as well as those of other organs, and a knowledge of the formation and action and morbid conditions of the secretions were made known to us in a great measure in this way, as likewise the history and changes that occur in diseases caused by the presence of bacilli and other affections, such as myxœdema.

Having gained a better knowledge of the causes of disease, not only can we deal more effectively with the condition when it does exist, but we are able to prevent that existence, and in this use of preventive medicine we again feel ourselves superior to those who preceded us. We look to methods of research they knew nothing of, not only to aid us in staying the progress of communicable diseases, but to cause some of them to become extinct altogether. Yet one feels amazed at the vast and ever present difficulties that stand in the way of this. When one thinks of all the varied conditions and habits of life amongst the different races of the world one sometimes feels doubtful if such a result can be attained, for it is an ever present problem how to save the careful against the sins of the careless.

One great departure in dealing with disease in our day is the more frequent resort to surgery both as an aid to diagnosis and for better treatment. This tends to the advance of medicine as well as surgery. What the future of medicine itself will be seems to depend very largely on an increase of knowledge on other subjects and a better insight into the forces of nature. The Röntgen rays have enabled us to see what before could not be seen, and probably through some such agency we may be able in the future to see the structures and morbid conditions of the body more clearly and more accurately. Colour photography is becoming perfected, and it may be that some new discovery in a kindred way may enhance the value of the Röntgen rays in its application to medicine.

Though we have improved in our knowledge and in the methods of research, yet the question arises, has the mode of teaching in our public and scientific schools reached that standard that it should? The amount to be acquired by the student is steadily increasing, but against that increase we must remember that much that was taught is now replaced by truer teaching, and truth itself is reached by better and shorter methods. The great aim of education should be to engender a scientific habit of thought and study, and to develop that faculty unknowingly possessed by the unconscious genius, and not simply to force knowledge into a human brain and make use mainly of its retentive power. Teaching such as this, causes many a wasted life for the non-use of the powers possessed, not only dwarfs the possessor, but also unfits him in seizing his opportunities to advance the general good, and to altogether miss the happiness of success.

There is one matter of much importance that is quite overlooked by the medical teaching bodies, and it seems to me that the Branches of the British Medical Association existing in the teaching centres might well supply the deficiency if it cannot be met in any other way. There is no provision for teaching the ethics of the profession, and no attempt is made to enlighten the student as to the relations that should exist between a fellow practitioner and himself, nor to instruct him as to his bearing towards patients and to such agencies as he is likely to come in contact with, nor to make him acquainted with the aim and objects of the various medical societies in existence in the Commonwealth.

Standing at the grave of the nineteenth century, and reviewing its history, we feel that it has been a time of ceaseless onward movements. We live in an age of science, and not one of art and literature mainly, as the ancients did, and science contains within it the power of unlimited growth. The spirit of progress is an abiding element in human nature. So long as man exists, so long will he hear a voice ever luring him on to seek out the mysteries of the world and of life. Methods of research gain their aim, or work themselves out, but the onward movement is taken up in fresh directions and by other workers, and so progress continues. Man is ever seeking success, but never feels that he has gained it. As in the past, so it will be in the future. Many of our beliefs will be obsolete to the man of the next century, for the years as they go will have cleared away many inaccuracies, and truer observations and new discoveries will have made his view clearer and his knowledge greater. We must remember, too, that the average intelligence and culture is vastly greater than it was a century ago, and that more of the human race recognise the nobleness of life, and the magnificence of doing. When we think of the vast numbers in the world whose state is so low as to be never far removed from starvation, even in the large cities of the world, we feel that here is an element of danger. Hence a mass of human wreckage is always drifting, choking up the channels of progress, increasing crime, and breeding disease, telling us in forcible terms that in the race for material progress the social condition of the people must never be forgotten.

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AN INTERESTING BREAST CASE.

By A. G. E. Naylor, L.R.C.P. and L.R.C.S. Edin., Victoria.

◆

Mrs. J., 35, consulted me for abscess of the left breast a month after birth of her only child. Twelve years ago, she had a "tumour" removed from the same breast, when the wound healed in about a week.

I opened the abscess freely, one of my incisions passing across the lower end of the scar left from the cut made twelve years before. When dressing the breast two days after, I had opened it on removing my large drainage tube, something that looked like a smaller tube came into view, and with some difficulty a well-preserved rubber tube about an inch and a half long, and one-fifth of an inch in diameter was withdrawn.

I wrote to Dr.———, who operated for the "tumour"—a surgeon with a reputation in Victoria—describing the case, and asking him *how* and *why* a drainage tube came to be there when his wound was supposed to and did heal by first intention. He replied that he remembered the case, and that at the time he and his assistant thought the tumour was a scirrhus. He avoided answering my question as to the presence of the tube, but emphasized the fact (and congratulated himself upon it) that his dressing must have been thoroughly aseptic.

A foreign body in the shape of a drainage tube is not often found in a breast; hence the publication of this case.

N.B.—When I received the surgeon's letter in reply to mine I was not wholly surprised at the how and why of the presence of the tube after his operation, for his *envelope* advertised his "Private Hospital," and his letter contained the extraordinary statement that the tumour he had removed through a comparatively small incision was thought by him and taken for granted to be a scirrhus mammas.

Mrs. E. H. ROBISON née McEWEN, late of Prince Alfred Hospital, Sydney, and Matron, Mudgee Hospital, ANNOUNCES TO THE MEDICAL FACULTY, that she (having lately returned from Dr. Otto Walther's Sanatorium for Consumptive persons at Nordrach, Black Forest, Germany) HAS ESTABLISHED A SANATORIUM upon similar lines AT LEURA, BLUE MOUNTAINS, New South Wales. Terms on application.

"LYNTON," LEURA.

NOTE ON THE TRUE MEANING OF FIBRILLAR TWITCHINGS.

By Angel Money, M.D., F.R.C.P. Lond., Sydney.

◆

Artificial barriers are constantly being removed in the onward progress of our knowledge. At one time it was thought that fibrillar contraction was a necessary accompaniment of progressive muscular atrophy of spinal origin. Now it has been clearly, if not abundantly, proved that atrophy of muscle and atrophy of corresponding spinal motor neurons may occur together without fibrillar contractions. In stating this fact nothing else should be included and no further inference drawn. It has long been recognised that spontaneous muscular flickerings are not noticeable in pure muscular wasting attended with obvious or concealed sclerosis and fatty infiltration of supporting tissues of muscles. Assertions have been made that fibrillar contractions may be absent—indeed probably must be absent—in cases of pure and unadulterated atrophy of the lower motor neurons. Great is the probability that spontaneous muscular flickerings in muscles are a sign of disturbance in the upper cerebral motor neurons. I have long thought that this was their true significance, and increased experience, clinical and pathological, only goes to confirm this view.

REMOVAL OF HYPERTROPHIED SCAR TISSUE BY MEANS OF THE ROENTGEN RAYS.

By L. Herschel Harris, M.B., Ch.M., Hon. Skiagrapher Sydney Hospital.

◆

S.G., *æt* 19, female, was operated upon for suppurating tubercular glands of the neck fifteen months previously, and as a rather extensive dissection was necessary, the skin incision made was consequently a large one. Some months afterwards a cicatrix formed, which at times gave rise to neuralgic pains, and this, together with a contraction of tissue which resulted, caused the patient to hold her head on one side. This condition gradually increased, and an overgrowth of tissue in the region of the cicatrix began to appear, and steadily increased, so much so that when the patient presented herself at the Sydney Hospital, the hypertrophied tissue was in several places half an inch above the healthy skin.

Thinking that the X rays might play an important part in causing such tissue to be absorbed, I resolved to try it in this case, and the patient having consented to the treatment, the first sitting was arranged for 24th October, 1900. A mask of thin lead foil was employed, with an opening in it corresponding to the scar, and this was closely applied to the face. The tube employed was a soft one, of the bi-anodal pattern, placed at a distance of five inches from the part, and a current of six ampères was used. Each sitting lasted ten minutes. The treatment continued until 11th January, 1901, two intermissions of seven and fourteen days respectively having occurred, due to inflammatory trouble which resulted.

After seven consecutive sittings, the patient noticed that the scar had become more supple, allowing thereby more freedom in the movement of the head. After fifteen sittings a brown pigmentation had appeared on either side of the scar, whilst the latter had become red, slightly swollen and inflamed. At this stage 15 per cent. boracic lanoline ointment was prescribed, and the patient was instructed to apply this daily for one week, during which period the rays were not applied. At the end of the week, when the patient again presented herself, the inflammation had subsided, the scar tissue was considerably diminished in size, and at the same time this tissue which originally appeared like firm, white fibrous tissue had now become vascular, and numerous small branching vessels could here and there be seen.

The treatment was then resumed, and after eighteen sittings the pigmentation and inflammation again occurred, and to a slightly greater extent than previously. The sittings were then discontinued. The boracic ointment did not answer so well this time, and equal parts of zinc and carbolic ointments were substituted for it, with very gratifying results. A fortnight afterwards the inflammation had totally subsided, and the hypertrophied scar had completely disappeared, leaving only the mark of the skin incision.

The result of this case was eminently successful, for in the first place the cosmetic effect was greatly enhanced; secondly, the movements of the head and neck were free, the head not being drawn to one side as originally; and thirdly, the neuralgic pains which the patient had so often complained of, had entirely disappeared.

IN the Archives of the Roentgen Rays is published a skiagram by Dr. L. Herscoel Harris, of a dislocation of the metatarsus.

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A MESSAGE FROM THE DEAD.

A PSYCHOLOGICAL STUDY.

BY SAMUEL T. KNAGGS, M.D., ETC, SYDNEY.

◆

THE NARRATIVE OF MR. MAIBEN BROOK.

IT was the year 18—, cholera had been raging. The panic amongst the inhabitants had died out and had been replaced by a stolid indifference to death, which almost approached the appearance of a calm resignation. Carts still patrolled the city, each in charge of two men, dressed in long white blouses, whose duty it was to call at such houses as required their services, to hurriedly see that breathing had ceased and then place the dead in the plain, unpainted shells, and convey them to the place of burial. This hastiness may possibly have given rise to the rumour, probably exaggerated, that often the living were interred with the dead.

. . . .

Louis Marische and I were the senior assistants of Dr. Marx, the principal physician to the Bonn Cholera Hospital It was originally a general hospital for all classes and conditions of patients, but the exigencies of the epidemic and the necessity for isolation made it imperative that only cholera cases should now be admitted within the doors; and they were admitted by the dozen daily, in all stages of the horrors and agonies of the direful plague, and the deaths were many and often, so frequent, indeed, that we required almost as much houseroom for the dead as for the living.

. . . .

Winter had set in suddenly, commencing with a violent snowstorm, and we had hopes that the cold and sleet would abate the ravages of the epidemic. Marische and I occupied the same apartments, slept in the same bedroom, and had our meals in the same dining-room. His mother was a German and his father an Italian—each of an opposing religion—Catholic and Protestant; it, as sometimes happens, resulted that the son was a pronounced Agnostic, had no belief in God, the Church or the Devil. During the long weary winter nights we used often to while away the time by arguing over theological and kindred subjects, I, espousing the belief in a brief span of life in this world, a glorious resurrection, and happy after life. After a long and heated argument one night, in which I flattered myself that I had the best of it, Marische suddenly said, "Look here, Brook, suppose we draw up and each sign a solemn agreement, that the one of us who dies first shall, if possible, come back and tell the other if there be a God or a future." I shuddered at the thought, but the idea fascinated me, and a climax was reached when Marische and I drew a small quantity of our own blood, mixed it, and added to it some vinegar to keep it fluid, and with this strange ink we drew up and signed an agreement in accordance with his suggestion.

. . . .

Only a week had elapsed and I was alone in the dining-room, Louis Marische was lying a corpse upon the marble slab in the mortuary. He was also alone, for four other cholera victims had been removed for burial that afternoon. To his right hand was affixed a cord which communicated with a bell in my room. This was a precaution always adopted with everybody dead of cholera. It was a safeguard to warn the resident should the attendants in their haste have put away the patient while life still lingered. The slightest movement of that hand would ring the alarm.

. . . .

The chimes of a neighbouring cathedral struck eight o'clock. I was buried in a deep reverie, sadly reviewing my past acquaintance and friendship with my dearest friend, now dead He had told me of his parents and only sister, a girl seventeen years of age. to all of whom he was devotedly attached. I was wondering in what terms I should couch the letter informing them of their sad bereavement. My thoughts were intensified by the sad cadence of the chiming clock, the whistling wintry wind and pattering of the sleet upon the casement. Hour after hour passed unheeded, and I must have dropped into a gentle slumber. Suddenly a chill, cold, death-like feeling thrilled through me. I was awake, with all my senses acutely on the alert, and found myself standing up and gazing with horror at the alarm bell on the wall near the ceiling, above and in front of me, which was ringing with violent and spasmodic jerks. I rapidly crossed the quadrangle, stumbling over the deep snow and through the driving sleet without candle or lamp. I reached the mortuary, opened the door, a rift in a driving cloud admitted the moonbeams through the window. There, before me, seated on the marble slab, with wide open, staring eyes, his hands held out towards me in an imploring manner was my friend. "My God! Louis, how is this?" I exclaimed, rushing forward and catching him round the waist in my arms. His head fell on my shoulder, his cold lips impinged upon my ear, a rush of cold breath issued from his mouth, I plainly distinguished the word "God" and then all recollection left me.

I am told that several days elapsed before I regained consciousness. The violent ringing of the alarm bell awakened other inmates of the hospital, who at once proceeded to the dead house and found me lying insensible on the floor, grasping in my arms the corpse of my dead friend, whose body lay over me.

COMMENTS BY DR. KNAGGS.

This story, founded on well authenticated facts, is submitted as an illustration of how certain psychical phenomena and physical causes may, in combination, produce what might possibly be construed into supernatural manifestations. In the case of my friend, Maiben Brook, the death of his intimate friend produced a depressed, impressionable condition of his mental faculties. Thus was prepared a suitable condition of mind for unconscious cerebration and expectant attention. It is a well-known fact that corpses of cholera patients are often subject to *post-mortem* muscular movements, especially contractions of the flexor muscles, hence the spasmodic ringing of the alarm bell and the sitting posture assumed by the body. In clasping what he imagined to be his revivified friend around the chest, a gush of air was expelled through the mouth, producing a hiss; the interpretation of this into the word "God ' was the purely imaginative result of expectant attention, engendered by the singular agreement so impressively written and signed a week previously.

NOTES ON A CASE OF *POST-MORTEM* INFECTION.

By ARTHUR PALMER, M.B., C.M., F.R.C.S. EDIN., ETC, SYDNEY.

◆

THE case was that of a medical man in a Government Institution, who received a slight abrasion on the side of the middle finger of his right hand, whilst making a *post-mortem* examination of an inmate who had died of pneumonia. There had been an epidemic of pneumonia of a virulent type in the Institution.

The patient in question had not complained of being ill until the night previous, and at the *post-mortem* three hours after death almost the whole of one lung was found in a state of hepatization. The *post-mortem* was carried out on Friday. On Saturday the medical man felt out of sorts, and finding the slight abrasion, washed it in a strong solution of permanganate and applied a carbolic dressing. Even at this period he could trace lines of lymphatic infection as far as the elbow. On the Sunday he was so ill he had to remain in bed; his temperature then being 101°, rising by Tuesday to over 103°. On Monday a well marked patch of herpes appeared near the right angle of the mouth, and the supra-trochlear and some of the lowest of the axillary chain of lymphatic glands had become enlarged and tender. On Tuesday the pain and tension were so great that three incisions were made along the back of the hand over the metacarpal bones of the index, middle and ring fingers.

These greatly relieved the pain for the time being, but on the next day two other similar incisions were considered necessary, and made over the metacarpals of the thumb and little finger, the previous incisions being at the same time lengthened and deepened. These last had become filled up with a thick sero-fibrinous exudation from which could be squeezed a small amount of a pale yellow serous looking fluid. Films made from this and stained, some with Lœffler's methylene blue and some with weak carbol fuchsin, showed typical Frankel's lanceolate pneumococcus with distinct unstained halo, and apparently no other organisms.

The hand at this stage looked heavy and clumsy, and the patient described it as giving a sensation of being injected with plaster-of-Paris. Up to this time no actual fluid pus had been seen, but two days later (Friday) a pocket was found over the proximal inter-phalangeal joint of the injured finger and opened, and similar pockets were found by probing the incisions over the metacarpals of the middle and little fingers. Stained slides from this pus again showed only the pneumococcus.

Unfortunately, no cultivations were made until drainage tubes had been *in situ* for several days. Cultivations were then obtained on blood-agar kindly prepared for me by Dr. C. V. Bowker, and these showed an almost pure growth of diplococcus, although subsequently Dr. Bowker, by subcultures obtained also a growth of streptococcus.

The case may, therefore, have been one of mixed infection, although from the facts—that the earlier specimens showed an apparently pure culture of pneumococcus, whilst the later specimens also showed it in great excess of other organisms—the peculiar sero-fibrinous nature of the exudation, which time after time filled up the incisions; and from the herpes on the face I think I am justified in considering that the pneumococcal infection was the predominant feature of the case.

The temperature dropped almost to normal on the ninth day, but ascended again on the establishment of a fresh focus of suppuration in the palm over the hypothenar eminence. From first to last, however, there was very little suppuration, the most striking clinical features of the case being the immobility of the hand, the very slow resolution of the inflammation and absorption of the exudation, notwithstanding the small amount of discharge, and the great stiffness and weakness of the hand remaining for many weeks after healing of the incisions. After getting about the doctor underwent a course of the Tallerman dry air treatment combined with regular use of the battery.

For the first month the Tallerman bath was used for an hour a day, during the second month about thrice weekly.

At the present time, sixteen weeks after infection, the hand, with the exception of the middle finger, has almost recovered. The patient cannot voluntarily flex the terminal and middle phalanges of the middle finger, although the joints of the finger are quite mobile. As the only incision made in the palm was over the hypothenar eminence, the deficiency is rather difficult to understand, but may be due to adhesions between the tendons of the superficial and deep flexors and the proximal phalanx.

In the "Manual of Bacteriology," by Muir and Ritchie, it is stated that the Pneumococcus of Frænkel is pathogenic to various animals, being very fatal to the rabbit and mouse, the pigeon being immune, whilst the sheep occupies an intermediate position. In the last, after sub-cutaneous inoculation, there appears an enormous sero-fibrinous exudation. In the human, they state, only a slight local inflammation is produced, which passes off in a few days. The former description more accurately fits in with the case described in this paper. Dr. Sydney Jamieson is of opinion that pneumococcal infection—other than of lungs—is of more frequent occurrence than is usually supposed.

In this case, I would have tried the effect of anti-pneumococcal serum had it been obtainable, as I would expect more benefit from it in peripheral infection than in ordinary pneumonia, for in the latter, even if the diplococci and their toxines were neutralised, there would in most cases still remain the mechanical blocking of the alveoli of the lung.

Lady Bowen Lying-in Hospital, Brisbane.—Applications for the position of Resident Medical Officer are invited from ladies duly qualified as Medical Practitioners. Applications, stating salary expected, and covering copies of testimonials to be in the hands of the Secretary, Lady Bowen Hospital, on or before May 1st. For the Committee,

E. J. Burnett, Secretary.

TYPHOID FEVER WITH COMPLICATIONS, PYREXIA LASTING WITH RELAPSES TO THE 112TH DAY.

BY ARTHUR ANDREWS, M.R.C.S. ENG., L.S.A. LOND., ALBURY, N.S.W.

◆

G.G., aged 9 years, a thin, delicate girl, was first seen on December 25th, 1893, having been ill in bed 14 days. Her temperature was 105° and pulse 130. Bowels very loose, motions typical typhoid, abdomen distended and tender. Was drowsy and semi-conscious, much delirium at night. Tongue dry and glazed. Heart and lung sounds normal. Had severe rigor 15 days before and considerable fever since. The case ran the usual course of a severe attack of typhoid, with morning temperature 104° and evening 106°. Antipyretics with cold sponging were first resorted to, but finding the temperature could not be controlled, cold baths were given as often as the thermometer showed over 102°. Improvement followed and on the 27th day the temperature was normal in the morning.

On 28th day temperature normal morning and evening, bowels quiet, and motion natural. That night she slept badly (it is believed that a younger sister gave her some passion fruit) and on the morning of the 29th day her temperature rose to 105·5°. Diarrhœa again became troublesome, tongue dry and glazed, and there was considerable abdominal distention. The baths were resumed, and were sometimes required as often as eight times in 24 hours.

On the 32nd day pneumonia was detected in the lower lobe of the right lung. This ran a mild course and cleared up satisfactorily. The baths were continued all through.

On the 35th day superficial abscesses began to appear, and during the next month 27 required incision. They were scattered over the scalp, arms, legs, back, groins, axillæ, and abdomen. Bed sores formed over the sacrum and hips. Diarrhœa and meteorism were very troublesome. High temperature was also persistent and could only be controlled by the baths.

After the 60th day the fever lessened and two or three baths daily only were required. At the same time ascitic fluid became obvious. The motions were still typical of typhoid, and occasionally contained small quantities of blood.

On the 70th day the ascites had decidedly increased, and the hepatic dulness was much extended. Diarrhœa was constant and the temperature rose to 104° within two hours after a bath. She failed steadily and the abdominal distention increased, being especially marked on the right side. As she appeared sinking I performed laparotomy, thinking to find a hepatic abscess. The liver was much enlarged generally but no pus could be found, several punctures being made without result. The peritoneum was slightly roughened in parts. Finding no definite lesion, I washed out freely with hot boracic lotion and closed the wound. She passed a typical motion while on the table.

From this time she improved steadily, sleeping comfortably the first night, and the temperature the next morning was only 100°. Diarrhœa, tympanites, and tenderness gradually lessened, and the temperature approached the normal.

The stitches were removed on the 90th day, and on the 93rd the temperature was normal morning and evening. She was kept in bed till the 103rd day when the weather being very hot she was put on a couch for two or three hours.

On the 105th day another error in diet took place, and the diarrhœa returned with a temperature of 105°. There was but little distention or tenderness with this relapse. She was put back to bed and the baths resumed, and the temperature finally fell to normal on the 113th day. From this time she rapidly regained strength, and in three months was as strong and in better condition than before the attack.

The surroundings of the case were very unsatisfactory, as the house was small and insanitary. A sister had a severe attack of typhoid at the same time and was removed to the hospital. The parents were very poor, and the only nurse available was the father. The mother was laid up in the house most of the time from a bad confinement, and was too weak to look after the girl at all. The weather was extremely hot, and the family were almost entirely dependent on the neighbours for food and necessaries. During the course of the case 257 cold baths were administered. She always seemed to like them except for a few days when she had several abscesses forming, and the moving was painful. Each abscess was opened as soon as pus was evident. The medical treatment was confined to antipyretics in the early part of the case, and later digitalis, strychnia, and caffeine principally. Salol and naphthol controlled the offensiveness of the motions. Considering the whole course of the case it seems that the baths were certainly more conducive to the happy result than any other treatment, but real improvement did not set in till after the laparotomy, from which time it was most marked. At the operation there was no definite deposit of tubercle detected in the peritoneum, but the ascites would lead one to suspect it especially as the washing out alone was so efficacious.

She is now (eight years after the illness) a well grown, stout young woman, and never feels any ill effects from the attack.

A CASE OF POST-ANÆSTHETIC CATALEPSY.

By J. I. C. COSH, M.B CH.M SYD., DP.H. CANTAB., AND R. B. WADE, M.B. SYD..

A.B., aged 16 months, well nourished, but with a slight tendency towards rickets, was anæsthetised with E_4Cl_3 for the purpose of circumcision.

The anæsthetic was well taken, the colour and pulse kept good throughout, the cervical reflex was slightly active, and the pupils small and active during the whole operation; removal of the foreskin caused slight glottic spasm. The time of administration was about fifteen minutes.

About three or four minutes after the anæsthetic was withdrawn, the child, who was lying on his back, was noticed in the following position: Back arched into an kyphotic curve, so that the buttocks were raised off the table, thighs flexed on abdomen, legs flexed at knee joint, in fact, the position into which it had been raised for washing the buttocks.

It was then found that any of the limbs retained whatever position they were placed in, except that if the thighs were flexed on the abdomen, the legs always came down into a position of flexion at the knee, and could not be kept extended. The condition was not equal in all the limbs, but was best marked in the right leg, and at first the left, and later the right arm; the limbs in which it was less marked would fall an inch or two, in the direction gravity pulled, from the position they were placed in.

The condition lasted for about fifteen minutes, until the child began to cry, when normal movement returned. During this time the pulse was slow, of high tension, the colour good, eye reflexes active, and the respiration of the catchy, half-sobbing character often seen in children recovering from anæsthesia.

Hewitt* mentions the occurrence of catalepsy after nitrous oxide.

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"OUR ARMY IN SOUTH AFRICA."

By R. SCOT SKIRVING, late Consulting Surgeon to the Australian Contingents.

Price, 2s.; By Post, 2s. 2d.

ANGUS & ROBERTSON, Publishers,
SYDNEY and MELBOURNE.

PROCEEDINGS OF BRANCHES.

NEW SOUTH WALES BRANCH OF THE BRTIISH MEDICAL ASSOCIATION.

THE Annual General Meeting of the Branch was held on Friday, 29th March, 1901, at 8.15. p.m. Dr. Coutie, President, in the chair. There were also present—Drs. Foreman, Jamieson, Pirie, Knaggs, Morton, Sandes, Binney, Manning, Clarence Read, Barrington, Rennie, Hinder, Mills, Flynn, Spencer, Taylor Young, Cope, Kirkland, Ludowici, Sinclair Gillies, Fiaschi, Crago, F. H. Quaife, West, Gledden, Maitland, Arthur, McDonagh, Carruthers, Cosh, Blackburn, Worrall, Gordon MacLeod, Maguire, MacCulloch, Harold Browne, Ludlow, Thomas, Trindall, Thring, Megginson, O'Hara, Dixson, Clubbe, Abbott, Armstrong, and others. Visitor—Dr. A. L. Levy.

The minutes of the previous meeting were read and confirmed.

The PRESIDENT nominated Drs. Binney and Clarence Read as scrutineers, and Drs. Flynn and Sandes as assistants.

The PRESIDENT announced the election of the following members since the last meeting of the Branch:—Dr. Kennedy, Hay; Dr. Morton, Inverell; Dr. Olver, North Sydney; Dr. Dey, Wilcannia.

The following have also been nominated for membership:—Dr. Brennand, North Sydney; Dr. A. L. Levy, Newtown; Dr. W. Begg, Dudley, Newcastle; Dr. H. Sheldon, Coonamble; Dr. Harriett Biffin, Sydney; Dr. J. W. Harbison, West Maitland; Dr. W. Ekin, Picton; Dr. V. A. Smith, Grafton; Dr. W. F. Burfitt, Glebe Point; Dr. W. J. Stewart McKay, Stanmore; Dr. W. J. Jenner, Leichhardt.

Objections were raised to the election of two of the candidates, and the Hon. Secretary undertook to place the objections before the Council before the election took place.

The report and balance-sheet were taken as read, and the adoption of the report was moved by Dr. COUTIE and seconded by Mr. HANKINS, and carried.

Dr. CRAGO moved the adoption of the balance-sheets of the General and *Gazette* funds. Carried.

REPORT OF COUNCIL AND TREASURER'S STATEMENTS.

The Council has much pleasure in presenting the report of the year's proceedings to the members, and in doing so must congratulate them on the continued prosperity of the Branch, which is now one of the largest colonial branches. There are 394 members upon the roll at the present time.

During the year there were nine general, one special, and sixteen Council meetings held. The meetings have been well attended, and the papers and exhibits presented at the meetings by the various authors have been of a highly interesting and instructive nature. A list of the papers and exhibits is appended to this report.

Twenty-two members have been elected during the period under review; five resignations were accepted, and nine members were struck off owing to the non-payment of their subscription. Nine members have been removed from our ranks by death, namely, Drs. J. W. Hester, F. S. Pilkington, Dagmar Berne, E. H. Robison, A. Shewen, J. J. Steel, L. E. F. Neill, J. E. Cruise, and R. Hunter.

The Council has had under its consideration the establishment of branches in the various country centres, but up to the present nothing definite has been arranged. It is hoped, however, that in the ensuing year something will be done to bring the country practitioners more into touch with the profession generally.

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* See "Anæsthetics and their Administration," p. 332.

Conferences have been held during the year with representatives of the Clerks' and Warehousemen's Benefit Society, and the Australian Natives' Association, with reference to the relations of these societies to their medical men, with the result that the first-named society has adopted the income limit and has agreed to other suggestions made by the Council, while the Australian Natives' Association will not be countenanced under present circumstances. A conference was also held with Mr. R. A. Price, M.P., with reference to the Medical Bill, which has since become law.

The Home Association has arranged that all the names of unattached members applying for admission to the parent Association will first be submitted to the Branch of the colony to which they belong before election. This matter was placed before the Council of the Home Association by Dr. Sydney Jones as representative of this Branch.

The Council regrets to have to record the death of the late Dr. John J. Steel, a well-known and highly esteemed member of our profession, while on active service in medical charge of the N.S.W. Naval Contingent in China. Dr. Steel received high commendation for the manner in which he performed his duties, and his devotion endeared him to the officers and men with whom he was associated.

A vacancy has occurred in the Council owing to the death of the late Dr. L. E. F. Neill, whose untimely end came as a great shock to the members of the Branch as well as the public generally. His place in the community will be difficult to fill. Dr. Neill was painstaking and energetic to a degree, and the Council desires to place on record its deepest regret at the loss it has sustained.

Under Section 35a of the Articles of Association, the following societies have been declared prejudicial to the interests of the profession: The Australian Natives' Association, the United Mutual Assurance and Medical Benefit Society, and the Manly Medical Benefit Society. The two latter have not been heard of since.

The Hon. Dr. Mackellar, Dr. Scot Skirving, Dr. MacCormick, and the late Dr. Shewen were invited to represent this Branch at the Annual General Meeting of the Home Association.

Drs. Knaggs, Crago and Worrall were again appointed the sub-committee to manage the ***Australasian Medical Gazette.*** Too much praise cannot be given to these gentlemen for their untiring efforts to make the *Gazette* a thorough success, and the thanks of the members are due to them for their services during the past year.

A general meeting of the profession was held on Friday, 31st August, 1900, for the purpose of considering the position to be taken up by the profession towards the Australian Natives' and like Associations, when resolutions were passed re-affirming an income limit of £200 per annum, and requesting the Council to frame by-laws for a permanent investigation committee. The by-laws have been framed, and the Investigation Committee has commenced collecting the necessary information for the proper carrying-out of the work allotted to it.

The Hon. Treasurer's statement of receipts and expenditure for the Branch accounts shows the total receipts to have been £811 14s. 1d., and the expenditure £795 4s. 7d., leaving a credit balance of £175 0s. 11d. to commence this year with.

The report of the *Gazette* Committee is appended hereto, together with a table showing the attendance of the Councillors at the Council meetings of the Branch.

W. H. COUTIE, President.
G. T. HANKINS, Hon. Secretary.

PAPERS.

Dr. Tidswell—On the Dissemination of Plague—Illustrated by Maps, Museum Specimens, Lantern Slides, and Microscopical Preparations.

Dr. Sydney Jamieson—On the record of Post-Mortem Examinations of Cases of Plague.

Dr. F. Norton Manning—The Epileptic—His Treatment and Care.

Dr. Hinder—A Paper on Vesical Ulcer.

Drs. Quaife and Rennie—Notes on a Case of Aneurism of the Arch of the Aorta in a Woman.

Dr. Sydney Jamieson—Demonstration of Plague and other Pathological Specimens.

Drs. Rennie and Crago—Notes on a Case of Hydatid of the Brain—Operation—Recovery.

Dr. Barrington—Notes on Specimens: (1) Sarcoma Developing in an Ovarian Dermoid; (2) Myxosarcoma Uteri; (3) Hydrosalpinx with Twisted Pedicle; (4) Incomplete Tubal Abortion; (5) Mesometric Myoma with Bilateral Cystic Ovaries.

Dr. Charles MacLaurin—A Paper on a New Operation for the Radical Cure of Inguinal Hernia.

Dr. Foreman—Notes on Two Cases of Cæsarean Section.

Mr. G. T. Hankins—Notes on a Case of Neoplasm in the Neighbourhood of Larynx Causing Suffocation, Tracheotomy, Subsequent Removal of the Growth by External Operation—Patient Exhibited.

Dr. Barrington—A Paper on the Scope for the Removal of the Uterine Appendages and some Points in the Technique.

Dr. Camac Wilkinson—Demonstration of the Bacteriology of Two Cases of Meningitis; (1) Due to Influenza; (2) Due to Cerebro-Spinal Fever.

Dr. Camac Wilkinson—Demonstration of the Parasite of Tertian Ague.

Dr. Maitland—Notes on a Case of Stone in the Pelvic Portion of the Ureter,—Ureterotomy.

Dr. Herschel Harris—A Paper on the Practical Use of the Roentgen Rays, Illustrated by over 100 skiagrams; also the Exhibition of Dr. Harrison Low's 10 inch coil and other "X" rays apparatus,

Dr. McMurray—Notes on a Case of Lupus Erythematosus. treated by "X" Rays.

Dr. R. Bowman—Notes on a Case of Lupus Vulgaris, treated by "X" Rays.

Dr. C Hinder—Paper on Prostatic Hypertrophy.

Dr. McDonagh—Notes on Case of Sarcoma, occurring in an Ectopic Testis, complicated with Bilocular Encysted Hydrocele of Epididymis.

Dr. McDonagh—Notes on Removal of Undescended Testis, occupying the Inguinal Region.

Dr. Charles McLaurin—A Paper on the Removal of the Gasserian Ganglion.

EXHIBITS.

Dr. Camac Wilkinson—Living exhibits—two cases of radical operation on mastoid: (1) for tuberculosis of osseous wall of meatus; (2) for cholesteatoma.

Dr. Worrall—Abdominal retractor.

Dr. Gledden—Papilloma of the rectum (microscopical sections by Dr. J. M. Gill).

Dr. Worrall—A two months ovum retained in utero for nine months.

Dr. Herschel Harris—A cast of a case of cirsoid aneurism.

Dr. Barrington—Pathological specimens.

Dr. Worrall—Huge fibroid cyst of uterus.

Dr. Worrall—Intra-mural fibroid, enucleated from the puerperal uterus

Dr. Hinder—Drawings illustrating cases of vesical ulcer.

Dr. Jamieson—Pathological specimens.

Dr. Gordon MacLeod—Case of double abducens paralysis, with extreme contraction of both recti interni.

Dr. Camac Wilkinson—Microscopical sections.

Dr. Worrall—Unusual form of cervical myoma.

Dr. Sinclair Gillies—Case of tumour in a man of 76 years.

Dr. Sinclair Gillies—Case of congenital deformity of the hands.

Drs Rennie and Crago—Hydatid of the brain.

Dr. Neill—A piece of rib excised, showing bullet lodged in it, imbedded in piece of cloth—longitudinal fracture.

Dr. W. Chisholm—Case of extroversion of the bladder.

Sixteen Council Meetings were held during the year 1900.

	Meetings attended.		Meetings attended
Dr. Abbott ...	... 15	Dr. Hankins	... 16
Dr. Blackwood	... 12	Dr. Jamieson	... 13
Dr. Brady ...	... 10	Dr. Knaggs ...	... 14
Dr. Clark ...	... 10	Dr. Neill ...	... 14
Dr. Coutie ...	... 13	Dr. Rennie ...	... 14
Dr. Crago ...	... 15	Dr. Thring ...	... 3
Dr. Foreman	... 10	Dr. Worrall...	... 14

New South Wales Branch of "The British Medical Association" Statement of Receipts and Expenditure for the Year ending December 31st, 1900.

RECEIPTS.

January 1st, 1900.	£	s.	d.
To Balance from previous year	158	11	5
" Subscriptions received	789	17	0
" Interest received	9	7	1
" Amount added for Exchange	2	0	0
" Donation, Western Suburbs Medical Association, towards expenses Investigation Committee	10	10	0
	£970	5	6

EXPENDITURE.

				£	s.	d.
By *British Medical Journal*				408	3	6
" Cost of Draft				2	19	3
" *Australasian Medical Gazette*				255	3	0
" Rent (Royal Society)				12	0	0
" Assistant Secretary (Honorarium) ...				40	0	0
" Assistant Librarian " ...				20	0	0
" Stamps (Receipt and Postage)... ...				28	9	1
" Refreshments				10	0	0
" Printing				12	8	6
" Medical Directory				0	10	6
" Exchange, Country Cheques ...				3	16	0
" Commission, Bank Charge and Sundries				1	14	9
" Balance in Banks	£174	7	8			
" " Petty Cash ...	0	13	3			
				175	0	11
				£970	5	6

Examined and found correct,
A. JARVIE HOOD, } AUDITORS.
ROBT. H. TODD, }
25th March, 1901.

W. H. CRAGO, HON. TREASURER.

"The Australasian Medical Gazette" Balance-Sheet for Twelve Months ending December 31st, 1900.

	£	s.	d.
To New South Wales Branch British Medical Association	557	12	11
" Bills Payable	244	5	9
" Sundry Creditors...	184	9	3
" Reserve for Bad Debts	50	0	0
" Profit and Loss Account	828	1	3
	£1,864	9	2

	£	s.	d.
By Goodwill of the *Australasian Medical Gazette*, at cost	1,150	0	0
" Sundry Debtors...	530	12	6
" Cash at Bankers	177	3	10
" " in hand	6	12	10
	£1,864	9	2

DR. PROFIT AND LOSS. CR.

December 31st, 1900.	£	s.	d.
To Rent and Gas	44	8	10
" Printing	630	1	0
" Salary of Clerk	53	0	0
" Postages	49	15	1
" Bank Exchange	1	1	8
" Discounts	82	4	3
" Management and General Expenses...	260	10	10
" Provision for Bad Debts	37	0	4
" Balance	828	1	3
	£1,986	3	3

December 31st, 1899.				£	s.	d.
By Balance				736	3	2
December 31st, 1900.						
" Revenue from Subscriptions	£709	9	11			
" Advertisements	540	10	2			
				1,250	0	1
				£1,986	3	3

H. W. CHAMBERS, SUPERVISING ACCOUNTANT,
70 Pitt-street, Sydney.

17th January, 1901.

We have examined the books and vouchers of the *Australasian Medical Gazette* and certify to the correctness of the above Balance-Sheet.

A. JARVIE HOOD, } AUDITORS.
ROBT. H. TODD, }

25th March, 1901.

Report of the "Gazette" Sub-Committee.

The *Gazette* Sub-committee, in submitting its report to the Council for the year 1900, has pleasure in stating that the *Gazette* has more than maintained its position financially during the year, notwithstanding a considerable falling-off in the number of New Zealand subscribers. The advertising columns have increased in comparison with the previous two years. The unfortunate split which has occurred in the Victorian Branch will injuriously affect the *Gazette* during this year (1901), but the inclusion of the Western Australia Branch among the list of Branches supplying their members with the *Australasian Medical Gazette* will, to a large extent, compensate for that loss. There will also be a further loss of members from New Zealand, as the New Zealand Branch has resuscitated the *New Zealand Medical Journal*.

The balance-sheet and profit and loss account are hereto attached, having been duly examined by the Auditors.

SAMUEL T. KNAGGS, } *Gazette*
RALPH WORRALL, } Sub-Committee.
W. H. CRAGO, }

January, 1901.

The retiring President (Dr. Coutie) then read the Presidential address. (See page 127.)

Dr. Foreman proposed that a hearty vote of thanks be accorded to Dr. Coutie for his address, and said the address was interesting and instructive, and if everyone acted up to the suggestions contained in it we would all be better at the end of the year.

Dr. F. H. Quaife seconded the resolution, and said he had been very interested in the address. It was pleasing to note the fact that the great science of Physics was advancing rapidly. The wonderful success attained in the bacterial destruction of sewage was a matter for congratulation. The difficulty of getting rid of sewage matter had always been apparent; but now, by going back to nature, the difficulty had been overcome.

Dr. Arthur said he would like to make a proposal that extract should be made from the address and published in the press. What was needed was the education of the public, and what better way could there be than by using the potent power of the press.

Dr. Coutie briefly acknowledged the vote of thanks.

Dr. Crago proposed that Drs. W. Chisholm and Coutie be appointed to represent this Branch on the Council of the parent Association during their stay in England. Carried.

Dr. Crago proposed that Drs. Chisholm and Pain be asked to represent the Branch at the Annual Meeting of the Association. Carried.

Dr. Rennie proposed that an address of loyalty to the King be prepared by the Council of the Branch. Seconded by Dr. Knaggs, and carried.

Mr. Hankins proposed the adoption of the rules of the Investigation Committee. Seconded by Dr. Knaggs, and carried.

The report of the Investigation Committee was laid upon the table for the information of the members.

Dr. Barrington realised the good work done by the Investigation Committee during the past year, and speaking in general terms thought they were to be congratulated on the result of their maiden effort. But a report, to be convincing, should above all things be absolutely accurate and incapable of misinterpretation, and in regard to the remarks about Lewisham Hospital he submitted this was not so. He held it was obviously unfair to print a report without giving those concerned an opportunity of knowing the nature of the accusations made against them. In regard to the statement "great objection is also made to the so-called fees paid to the medical officers of the Lewisham Hospital," he had received a communication from the Secretary of the Branch pointing out an unintentional error, the real rendering being, "great objection is also made to fees paid to the so-called honorary medical officers of the Lewisham Hospital." He would suggest as correct, "objection is also made to fees received by the medical officers of Lewisham Hospital from patients admitted into the private wards." It was necessary to explain this thoroughly, for country practitioners reading the original statement would infer that members of the Lewisham staff received fees from patients in the general wards, than which there could be no more pernicious custom, and such had never been done. To prevent misunderstanding, he would state exactly what obtained at Lewisham Hospital at the present time. The hospital is not subsidised by the Government, and the patients in the general wards, as in every general hospital in Sydney, are asked to contribute to their maintenance if they can afford to do so. The services of the staff are given absolutely gratuitously to the public and charitable part of the institution—they do not look even for their out-of-pocket expenses. The private wards are conducted on the principles of a private hospital, where patients pay three to five guineas a week for maintainance, and the physician or surgeon charges his fees—*i.e.*, he does not pauperise the patient. These fees are paid by the patient direct to the medical attendant, and have nothing to do with the funds of the public portion of the hospital to which the public subscribe. Often these wards are utilized by people of slender means—they pay the maintenance fee, and the medical attendant "lays up treasure in Heaven," *i.e.*, he gets nothing. There is another metropolitan hospital larger than Lewisham where precisely the same state of things obtains, but they escape unnoticed in the report of the Investigation Committee. He submitted with deference in regard to the statement, "The Societies that are generally condemned for various reasons are the North Sydney Dispensary, Manly Medical Society, People's Prudential, A.H.C. Guild, Leichhardt Medical Institute, Balmain Institute, Parramatta Dispensary, and the private wards of Lewisham Hospital," that it would have been in better taste had the Investigation Committee, in taking exception to "the private wards of Lewisham Hospital," placed them in a different category from the People's Prudential and North Sydney Dispensary—admittedly societies inimical to the best interests of the medical profession. It was inaccurate to speak of the "private wards of Lewisham Hospital" as a Society, and in doubting that they were as stated "generally condemned," he would ask what proportion of those sending in replies had raised objection to them? He could not surmise that the proportion was large enough to justify the sweeping assertion "generally condemned." He had spoken as Honorary Secretary to the Medical Staff of Lewisham Hospital, and as such he had been requested to read the following minute to those present:—"At a meeting of the Medical and Surgical Staff of the Lewisham Hospital, held on March 28th, it was unanimously agreed that the statements made in the "Report of the Investigation Committee" were highly detrimental to the reputation of the Hospital, and that the staff demand a full statement of the charges made against the hospital, in order that the matter be thoroughly investigated." The solution of the problem of private wards in general hospitals had been said to be "throw the private wards open to all practitioners," and personally he thought this should be done, and he believed it could be done. Without wishing to insinuate anything unpleasant, he could not but think there were some amongst us who invariably took the opportunity of throwing stones on the slightest provocation. He dared say that some of these few—for he believed they were very few—would willingly step into his shoes at Lewisham Hospital, and possibly subsequently find opportunities of throwing stones in other directions. Personally he usually sent his private patients into one of the well-organised private hospitals in the city; but if a patient wished to go into a private ward at Lewisham, he sent her there, and charged a proper fee if it could be afforded. Finally, he wished to say that personally he was entirely in accord with the need of union amongst the members of the medical profession, and so impressed was he with the necessity of this that he was willing to fall in with any reasonable suggestion that might be carried by the majority of the profession to solve the problem of private wards in general hospitals. He was quite prepared even to give his services free to patients in the private wards, provided his proper fees were paid to the hospital; but he was absolutely opposed to pauperising people who could well afford to pay. But there must be unanimity of action in this, as in everything else. He begged to move an amendment to the adoption of the Report—"That this Report, being inaccurate and misleading in its references to Lewisham Hospital, should not be adopted until such are so corrected in the *Australasian Medical Gazette* as to defy misinterpretation."

Dr. G. ARMSTRONG enquired if the meeting was in order in discussing this report.

The PRESIDENT explained that this was the report of the Investigation Committee to the Council, and it was merely laid on the table for the information of the members. Although there was no motion before the meeting, he had allowed Dr. Barrington, who seemed to regard it as a personal matter, to criticise the report.

The following gentlemen were appointed members of the Investigation Committee for the ensuing year:—Drs. Gledden, Sinclair Gillies, Todd, Binney, Jamieson, Hankins, Read, and Rennie.

The PRESIDENT announced the result of the election for Office-bearers and Council for the year:—President, Dr. Foreman; Vice-President, Dr. Rennie; Council, Drs. Hankins, Crago, Fiaschi, Abbott, Brady, Knaggs, Worrall, F. H. Quaife, Jamieson, Clark, Hinder, and Todd; Auditors, Drs. Jarvie Hood and Maitland.

Dr. COUTIE then introduced the President (Dr. Foreman), who took the chair and thanked the members for having elected him to the position.

The Council met at the Editor's room on Friday evening, 15th March, at 8.30 o'clock. Present: Drs. Coutie, Crago, Rennie, Hankins, Jamieson, Knaggs, Foreman, Brady.

The minutes of the previous meeting were read and confirmed.

Dr. CRAGO moved the following resolution—"The Council desires to place on record an expression of its sense of the great loss the Branch and profession generally have sustained in the untimely death of Dr. L. E. F. Neill." During the time Dr. Neill was a member of the Council he took a keen interest in all matters brought before it, and his clear judgment gained the admiration of all his *confreres*.

The following correspondence was read:—

Letter from the President elect of the British Medical Association, asking for delegates from this Branch to be appointed to the annual meeting of the Association to be held at Cheltenham, England, in August next.

Resolved—That Drs. W. Chisholm and E. M. Pain be recommended for appointment at the annual meeting.

Letter calling attention to certain wrongly-assumed medical titles.

Matter to be referred to the Inspector-General of Police.

Letter from the Hon. Dr. Creed, M.L.C., resigning his membership.

Attention to be called to Articles of Association.

Letter from Dr. Kendall with reference to the article which appeared in the *Daily Telegraph* of 2nd January.

Letter from Dr. Higgins, of Penrith, enquiring as to the views of the Council *re* Private Lists.

Resolved—That letter be acknowledged, and Dr. Higgins advised to consult his colleagues in the district, with a view of starting a society on the lines of the Sydney and Suburban Provident Medical Association.

Letter from Dr. Doak, with reference to the Clerks' and Warehousemen's Society.

Resolved—That the President of that society be interviewed by the hon. secretary.

Letter from Dr. W. J. S. McKay, enclosing form of application for membership of the Branch.

Letter from Investigation Committee, forwarding the annual report of the committee.

Resolved—That the report be published in the *Australasian Medical Gazette*.

Letter from Investigation Committee, calling attention to the advertisements for medical officers for the Manchester Unity and the Guilds.

Resolved—That a general meeting of the profession be called for Friday, 22nd March. Drs. Rennie, Jamieson, Hankins and Worrall be a sub-committee to draw up the resolutions to be presented to the meeting.

The report of the Council for the year 1900 was read and adopted for presentation to the annual meeting.

The balance sheet was presented by the hon. treasurer.

Resolved—That the smaller amounts of the *Gazette* fund be paid off, and half the larger amounts.

Resolved—That members in arrears with their subscriptions be not allowed to vote at the annual meeting.

Resolved—That ballot papers be initialed by Drs. Rennie and Coutie.

The nominations for the office-bearers and councillors were received for the year 1901.

The Council met at the Editor's Room on Thursday evening, 4th April, at 8.30 o'clock. Present—Drs. Foreman, Rennie, Hankins, Crago, Clark, Abbott, Knaggs, Brady, Worrall, Fiaschi, Todd, and Quaife.

The minutes of the previous meeting were read and confirmed.

Resolved—That Dr. Hankins be Hon. Secretary and Dr. Crago Hon. Treasurer for the ensuing year.

Resolved—That Drs. Crago, Worrall and Knaggs be the Sub-committee to manage the *Australasian Medical Gazette* for ensuing year.

Resolved—That Drs. Maitland, Abbott, O'Gorman Hughes and Doak be appointed to fill the vacancies on the Investigation Committee for the year 1901.

Resolved—That the profits of the *Australasian Medical Gazette* be divided equally between the Editor and the Manager, provided that the profits of the year do not exceed £200, any surplus above that amount to be paid to the *Gazette* Reserve Fund.

The following gentlemen were elected members of the Branch:—Drs. H. J. Brennand, A. L. Levy, W. Begg, H. Sheldon, J. W. Harbison, W. Ekin, V. A. Smith, W. F. Burfitt, W. J. Jenner and Alfred Campbell.

Read correspondence with reference to the nomination of Dr. Harriett Biffin, also the circular sent by Dr. Biffin to the members of the Branch with reference to her appointment to the Adelaide Hospital staff.

Resolved—That Dr. Harriett Biffin be elected a member of the Branch.

Read a letter from the Hon. Secretary of the Clerks' and Warehousemen's Benefit Society, with reference to the declaration of income.

VICTORIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

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THE ordinary monthly meeting of the Victorian Branch of the British Medical Association was held at the Austral Salon on March 20th. There was a fair attendance of members, and the President, Dr. Nield, occupied the chair.

A paper was read by Dr. CUSCADEN on "The Principal Diagnostic Signs of Extra-Uterine Fœtation."

THE PRINCIPAL DIAGNOSTIC SIGNS OF EXTRA-UTERINE FŒTATION.

BY GEORGE CUSCADEN, L.R.C.P. & S. EDIN., HON. OBSTETRIC SURGEON, WOMEN'S HOSPITAL, MELBOURNE, VIC.

◆

SOME months ago I read before you a few notes on the advantages of curetting the uterus in all cases of extra-uterine pregnancy where there was any suspicion of retained decidua. And you will probably think I am placing the cart before the horse when I tell you that to-night I intend reading notes on the symptoms of extra-uterine gestation. The fact is, gentlemen, I have seen a number of these cases lately, and I think I can throw a little light on the subject of diagnosis.

In whatever part of the genital tract the pregnancy finally enters, I think it is now an established fact that it commences in the Fallopian tube. The slightest dilatation of the tube causes pelvic pain, and this I have noticed is one of the earliest symptoms. Should the ovum slip up into the tubo-abdominal region (ventral pregnancy), or between the folds of the broad ligament, becoming a mesometric pregnancy, the pain ceases—for a time, at any rate—until the tumour from repeated hæmorrhage into its sack becomes so large that it causes pressure on the neighbouring parts and pushes the uterus out of its normal position. The pain is always confined to one side, and is of a throbbing character. Should the pregnancy take place immediately after a menstrual flow, the chances are that no other symptom except pelvic pain is complained of until the next flow is due. From my experience, I have come to the conclusion that the onset of the menstrual flow marks the first symptom of decidual separation. Should the patient escape an abortion at this period, the odds are greatly in favour of her going another calendar month before signs of decidual discharge make themselves evident. I think then, that after pain decidual discharge is the next symptom, and, should the pregnancy be high up, say tubo-abdominal, the rupture of the sack into the abdominal cavity takes place at the date at which the menstrual flow should appear. Many women for various reasons keep the dates of their "period," and it is by referring to these that I have discovered the coincidence that the abortion takes place at one of these times.

On examination, a tumour on one side of the uterus, and, on bimanual palpation, a distinct pulsation can be felt by the finger in the vagina. This pulsation conveys a well marked bruit, aneurismal in character. Whether any temporary cessation in child-bearing to the otherwise healthy woman causes a change in the tube, it is a notable fact that the majority of extra-uterine gestation occur in women who have not borne children for several years.

Given, then, the case of a patient who has missed a period, who has not had a child for several years, who complains of persistent pain in one side of the pelvis, we would naturally suspect the condition of extra-uterine gestation. Should sudden collapse and severe spasmodic pain supervene, then the diagnosis is absolutely established. Hæmato salpinx, salpingitis, with some fluid in the tube, an inflamed dermoid cyst of the ovary, an ovarian tumour with a twisted pedicle, an hydatid degeneration of the villi and chorion, or even an appendicitis, might be mistaken for an extra-uterine gestation; but I think that, by paying attention to the symptoms I have described, a reasonable diagnosis may be made on the theory of exclusion.

Dr. NEILD said that he had seen cases of extra-uterine gestation occasionally, in connection with *post-mortem* examinations, and that in most cases the cause of death was peritonitis. He had noted that the gestation was generally about the 3rd month. He was pleased to find out with what great success such cases were now treated.

Dr. MCCANSH remarked that in seven cases that he had seen, all had been multiparæ, which was different to Dr. Cuscaden's experience; and whenever there was persistent pain in the flank and irregular menstruation, one should always suspect that it might be extra-uterine gestation.

Dr. **VANCE** stated that the cases he had seen were mostly multiparæ. He also had come to the conclusion that the two most common causes of severe abdominal pain and intense collapse, were tubal rupture and gastric ulcer. In one case of a young woman who had sent for him and had only complained of slight gastric pains, he had noticed a bluish appearance about the half moon of the nails of the fingers, which made him suspect internal hæmorrhage. He found, on inquiring, that she had gone a few days over her usual time for menstruation; and the case turned out to be an early tubal rupture.

Dr. **WILLIS** noticed that in Dr. Cuscaden's paper particular stress was laid upon the fact of the initial rupture and pain, occurring about the usual time for menstruation. This was a most important point, and ought to be carefully noted in all cases for the future, as it might be of great diagnostic value.

Dr. **BRYANT** agreed with Dr. Willis on the value of the last symptom mentioned. He had seen several cases of extra-uterine gestation, and had noted the shredding of decidual membrane in all of them, and in one case at the third month had been able to make out the little bones of the fœtus *per vaginam.*

Dr. **MACANSH** then read his paper on "Scorbutic Purpura."

SCORBUTIC PURPURA.

BY WILLIAM MACANSH, L.R.C.S., L.R.C.P. EDIN., BRIGHTON, VICTORIA.

I WOULD not weary you with the notes of this case, were it not that I believe it represents a class of slight ailments, very common in the pastoral districts of Australia, and more especially in the salt bush country.

Thomas L., aged 23, height 5ft. 6in., weight 10st. 8lb. A thick-set man, anæmic, and of a sallow complexion. He had been a boundary-rider in the Riverina, and came to Melbourne for medical treatment. When I saw him on September 7th, 1900, he complained of weakness and pains in his legs, occasional faintness, general malaise, and shortness of breath. From his groins down to his feet were innumerable petechial spots, some bright red, some dark, and others fading away. The spots were not generally connected with the hair follicles, although some had a hair in the centre. On the lower third of each leg there were two ulcers. On the left, one four inches long by one and a half wide, with irregular edges, on the inside of the leg; on the outer side was an ulcer about an inch and a half in diameter. On the right leg there were also two ulcers, but slightly smaller than those on the left, but much the same shape. The surface of all the ulcers were raised fully an eighth of an inch above the surrounding skin, and had an unhealthy fungoid appearance, bleeding on the slightest touch. Each ulcer had commenced as a small blood bulla.

Both legs were slightly œdematous. The heart sounds were normal, and to my surprise no hæmic bruit was audible. The urine contained no albumen and no sugar. The tongue was clean and moist, and there was no sponginess about the gums. Although the patient confidently affirmed that he had not been living a rough life, and that he had plenty fresh rations, I felt convinced that I had before me a case of purpura of scorbutic origin, and accordingly put him on a mixture containing small doses of citric acid and of citrate of iron and quinine. Within fourteen days the purpuric spots had disappeared. The ulcers were dressed with a simple ointment, and, although the patient was unable to lie up, they were healed by the middle of December, and he accepted a situation to serve in a tobacco shop.

The Barcoo rot frequently begins exactly as this patient's ulcers did, first a small blood bulla, the next day the blood is changed into pus, and then an intractable ulcer is fairly started, frequently accompanied by swollen limbs, painful glands, and more or less a general feeling of ill health. I have known men to become affected with Barcoo rot, though living at the head station where fruit and fresh vegetables were plentiful, and where milk and fresh meat were always on the table. But this has been in salt bush country. I have, on the other hand, known men to be living a very hard life in non-salt bush country without ever becoming affected with any form of scurvy.

Dr. **NEILD** had seen many cases of purpura in his pathological work, in various portions of the human body, even in the brain. In one case he had noted purpuric patches in the brain, almost like small extravasations of blood, but which were clearly purpuric spots. In this case there was no kidney disease, and the patient died of pneumonia; and he did not think that these purpuric patches had anything to do with the cause of death.

Dr. **VANCE** said that frequently purpura had been produced where salt had been taken in large quantities.

Dr. **WILLIS** stated that many cases of ordinary purpura, particularly in children, were due to toxic conditions following upon the exanthemata.

Dr. **BRYANT** had noted cases of purpura hæmorrhagica which had not been due to the excessive use of salt. Two children belonging to the same family, one about twelve and the other fourteen years had spongy gums, and small petechiæ over the limbs and body. The one twelve years old had bleeding from the ears, nose, and even into the eyes, as well as the mouth.

Dr. **CUSCADEN** inquired what was the probable cause of this scorbutic purpuric condition in salt bush country.

Dr. **MCCANSH** replied that the cause in the case he had related was no doubt due to living in salt bush country, but why it should be so he was not prepared to say.

SOUTH AUSTRALIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

The monthly meeting of this Branch was held at the University, on Thursday, 28th March, at 8 p.m.

The evening was devoted to the consideration of the report from London of the Constitution Committee of the Association and its suggested reforms.

The President (Dr. Brummitt) occupied the chair. Present: Drs. Symons, Cavenagh-Mainwaring, Marten, Evans, Gregerson, G. Hayward, Harrold, Morris, H. Russell, Scott, Cleland, J. A. G. Hamilton, W. Verco, Cudmore, Fischer, Swift, Lendon, Gault, J. C. Verco, Todd, A. A. Hamilton, and the hon. sec. (Dr. Gunson).

Minutes of last meeting read and confirmed. It was decided to send a letter of condolence to the family of the late Dr. S. J. Magarey.

The President then explained briefly the proposed alterations in the Constitution of the Association, and also gave an account of last annual meeting at Ipswich, at which some of the proposed changes were discussed.

Many of the members took part in the discussion which followed, and finally it was decided that the Branch should send the following reply to London:—"This Branch approves of the recommendations of the Constitution Committee, except as far as clauses 5 and 8 are concerned.

Clause 5. Members believe that the inclusion of some unattached members in this State would be detrimental to the interests of the Branch, and consider it necessary to make some provision for the exclusion of unsatisfactory men.

Clause 8. With regard to the expulsion of members it is thought that it should be possible to expel members whose conduct is held by a Colonial Branch, to be seriously unprofessional, without reference to the Council in London."

THERMOPHORE.

Among the Thermophore articles being introduced in Sydney just now, are some that would be well for every medical practitioner to bear in mind. Not the least important of all is the baby's "Milk Thermophore," which consists of a double-walled, metal cylinder, filled with a composition of salts. After immersing the cylinder in boiling water for from eight to ten minutes, a bottle, fitting the interior, is simply filled with milk, as one might get it from any of our local milk companies, and the heat, generated by the liquefied salts, will warm the milk and keep it at a temperature of from 55° to 59° Cent. for the whole night, thus doing away with the altogether unsatisfactory and undesirable spirit stove heating, hitherto so commonly in use, quite apart from the great convenience to the mother. Nursegirls, as far as purity of food supply is concerned, are not always the best friends of babies in their charge, and the new Milk-Thermophore (which can readily be put into the perambulator) ought to prove very beneficial to babies, while being taken out by their nurses for an airing. Other articles made on the Thermophore principle are: Rubber compresses of all shapes and sizes, as well as table appointments, such as plates, tureens, vegetable dishes, coffee pots, tea pots, etc. Messrs. Lassetter and Co. are the retail agents, and as the salts are hermetically sealed up, no evaporation can take place, and they are said never to require replenishing, but will perform their function whenever re-heated.

NEW SOUTH WALES MEDICAL UNION.

The eighth annual meeting of the Union was held at 121 Bathurst Street, Sydney, on 27th March, 1901.

Present—Dr. F. H. Quaife (in the chair), Drs. Taylor Young, W. H. Crago, W. H. Coutie, W. A. West, S. Jamieson, J. Morton, Watson Munro, W. Spencer, J. M. Gill, A. Jarvie Hood, P. M. Wood.

The eighth annual report was read by Dr. Gill.

The Council congratulated the members on another successful year.

The deaths of Drs. Steel, Neill, Hester, Shewen and Woodforde, late members of the Union, were recorded with regret.

Two members had been assisted financially during the year.

The hon. treasurer's statement showed the funds in hand to be £1,560, an increase of £240 in the year (at the time of the meeting the funds exceeded £1,700).

The report was adopted.

The Council elected for the ensuing year was as follows:—Drs. Brady, Mullins, Knaggs, Foreman, Faithfull, Carruthers, Jamieson, Collins, Wood, Newmarch.

A vote of thanks to the retiring officers was proposed and carried.

At a meeting of the Council of the New South Wales Branch of the British Medical Association held on 16th inst., the Medical Institute of the Manchester Unity I.O.O.F., Elizabeth-street, Sydney, was declared to be an institution prejudicial to the interests of the medical profession in accordance with Article of Association, 35a.

THE MEDICAL BENEVOLENT FUND OF NEW SOUTH WALES.

Dr. H. L. Maitland (hon. secretary) read the Statement of Accounts of the Fund for the year 1900.

The following office-bearers were elected for the ensuing year:—Trustees, Drs. Faithfull and F. W. Hall; Hon. Treasurer, Dr. Faithfull; Hon. Secretary, Dr. Maitland; Committee, Drs. Quaife, Fiaschi and Gill.

1.—The Fund to be designated the "Medical Benevolent Fund of New South Wales."

2.—Objects: To afford assistance to any duly qualified medical man, or widow or orphan children of such, whom the Committee deem worthy of assistance.

3.—Management: The affairs of the Fund to be managed by a Committee of five, consisting of two Trustees, an Honorary Secretary, and two other members. Three to form a quorum. And the members of the Committee shall be duly qualified medical men.

4.—The Committee shall be elected annually by the Subscribers to the Fund, and any vacancy occurring during the year the place shall be filled within three months by the Committee. Election to be by ballot.

5.—The Committee shall have power to administer the Funds as they think fit, and shall make a report annually to the Subscribers of any business done throughout the preceding year.

6.—The Annual Meeting shall be held on the same evening as the Annual Meeting of the British Medical Association, New South Wales Branch.

The following subscriptions have been paid this year towards the Benevolent Fund :—

TWO YEARS.

Drs. Foreman, Gillies, Sigismund Brown and Blackburn.

ONE YEAR.

Drs. Worrall, Crago, Chisholm, Fiaschi, Frank Liddell, Gledden, O'Hara and McClelland.

THE TREASURER IN ACCOUNT WITH THE NEW SOUTH WALES MEDICAL BENEVOLENT FUND.

Dr.

1900.	£	s.	d.
Balance brought forward	31	16	3
1901—March 31st.			
Subscriptions paid from 31st March, 1900, to 31st March, 1901...	62	7	0
	£94	3	3

Cr.

1900.	£	s.	d.
Money disbursed to various deserving cases, as decided by the Committee, from 31st March, 1900, to 31st March, 1901 ...	49	12	0
Stamps	2	8	11
Printing	1	1	0
Exchange on Cheques	0	8	6
Bank Fees	0	10	0
Balance to Credit, as per Bank Pass Book...	40	2	10
	£94	3	3

	£	s.	d.
At Deposit in Savings Bank of New South Wales, as per Bank Pass Book, with Interest added to 31st December, 1900	113	17	1
Balance to Credit in Current Account in Commercial Banking Co. of Sydney, Bathurst-street Branch	40	2	10
Money available at present date	£153	19	11

E. & O.E.
31st March, 1901.

Audited, and found correct—J. M. GILL.
29th March, 1901.

R. L. FAITHFULL,
Hon. Treasurer.

(Signed) H. L. MAITLAND,
Hon. Secretary.

A MEETING OF THE MEDICAL PROFESSION OF N.S.W.

◆

A General Meeting of the medical profession was held at the Royal Society's Room on Friday, 22nd March, 1901. Dr. Fiaschi in the chair. There were also present—Drs. Binney, Coutie, F. Norton Manning, Pockley, Flashman, Hankins, Read, R. J. Jones, Knaggs, Clark, Megginson, Jamieson, Rennie, Crago, Muskett, G. L. O'Neill, Clubbe, Sinclair Gillies, Kirkland, Allan, Litchfield, Mackenzie, Young, Stacy, Brady, Gordon Craig, W. S. Brown, West, Cope, Mills, Frizell, Blackburn, Parker, Harris, Maitland, Worrall, Burfitt, Gordon MacLeod, Thring, Walker Smith, F. Hall, Harold Browne, H H. Marshall, Todd, Howse, Marano, Arthur, Cosh, Hinder, Levy, Doak, Blackwood, Ludowici, Walton Smith, Cooley, W. E. Harris, the Hon. Dr. Nash, M.L.C., and others.

The Chairman (Dr. Fiaschi) read the circular convening the meeting :—

MEETING OF THE MEDICAL PROFESSION OF N.S.W.

A General Meeting of the Profession will be held at the Royal Society's Room on Friday, 22nd March, at 8.15 p.m., for the purpose of considering the relations of the Medical Institute of the Manchester Unity, Independent Order of Oddfellows.

(Signed) GEORGE T. HANKINS.
Hon. Secretary N.S.W. Branch B.M.A.

16th March, 1901.

The Chairman then called upon Mr. G. T. Hankins to move the first resolution.

Mr. Hankins said : As the business of the evening was to consider the relations of the Profession with the Medical Institute of the Manchester Unity, Independent Order of Oddfellows, he thought it would be useful to take a retrospective glance at the history of the institution. It might surprise some members to learn that this union of lodges in Sydney dates as far back as 1847. At that time doctors were comparatively scarce, and the combination was probably formed with a view to offering sufficient inducement to a medical man to take on the duties. It is said, indeed, that the movement was initiated by a member of our own profession. It is not known what were the numbers either of members or doctors, nor the rate at which the latter were paid, but a quarter of a century later, in 1875, we find a report of a committee appointed by the Medical Board, M.U., to inquire into the working of the Institute which throws much light on the subject. The following is an extract which has reference to the medical officers :—

Report of the Committee appointed by the Medical Board to inquire into the working of the Medical Institute, June 9th, 1875.

. . . .

Your Committee having examined five medical men, all of whom have had considerable experience with Benefit Societies, and at some time or other have been connected with us, we are from their evidence and advice enabled to suggest some needful alterations. The whole of them agree in many particulars, and without any exception prove this fact—that is that the sole reason why medical men hold themselves aloof from us, and those who join us refuse to remain, is the small amount of pay we offer for the vast amount of work required. There being so many Benefit Societies now, and

> all giving medical benefits, it naturally follows there is a great demand for medical gentlemen. These societies allow their medical men from 14s. to 16s. per member per annum, and the chemists are allowed from 6s. to 8s. for medicines. These amounts, when compared with the allowance from the Board, speak for themselves. The medical officers, at the present rate of pay, say, £200 a year each, receive at the rate of 6s. per annum, so that we are actually demanding from these gentlemen the same amount of attention for 6s. as other kindred societies are paying from 14s. to 16s., for this, you will perceive, is unreasonable, and conclusively answers at once the many inquiries, why cannot we get good medical attendance. If we want proper medical attendance we must prepare ourselves to pay something approaching what other Institutions pay. We feel confident, when this matter is clearly represented to the members of our Institute, no one can object to allow a fair remuneration for the services they require. We trust our views concerning this point will meet with the approval of the Board, which will be the means of bringing about a much healthier state of things.
>
> The Committee have failed in getting any information which would guide them in coming to a conclusion respecting the inequality of the labour connected with the medical officers. There always has been, and we suppose always will be, a favourite one among them, and consequently he pays dear for his popularity. The only system to remedy this grievance is registration, that is, for the members to register their names every quarter upon one of the doctor's lists, and he would then receive pay for all returned to him. We do not feel justified in recommending this course in consequence of the difficulties to be overcome, which at the present time we think are insurmountable.

This is signed by a representative of each of the seven lodges included in the union.

The Medical Board took no notice of this recommendation at the time, but some years later increased the salaries of the three doctors to £250 per annum, and in or about 1887 appointed a fourth medical man at the same rate, making a total £1,000 a year to be divided equally between the four doctors. Quite recently the actual numbers of those entitled to attendance for self and family was 2,693. The rate of increase is small, not more than ten in the year, a fact accounted for, not by the number of deaths, but by members falling into arrears with their contributions. It will thus be seen that the doctors receive, one with the other, under 7s. 6d. for attendance on each member and family per annum. In England and Scotland the payment to club doctors is 3s. 6d. to 4s. per annum, but this is only for the member himself, it certainly includes medicines, but if one takes an average family as numbering five souls in all, one will see that the payment in Sydney is far lower than in London or Glasgow, which it certainly should not be. The total number of prescriptions written during the year is, according to the returns, about 43,000, but owing to the curious way in which the calculation is made, each item on the paper being reckoned as a separate prescription, the number may fairly be reduced by one-third, which will give 29,000. On this calculation the doctors receive on an average 8d. for each prescription, whether this involves attendance at the Hall or a visit to the patient's house. It would ill become one who nearly twenty years ago was a member of the Oddfellows' medical staff to use hard words when speaking of the Institute. The members of the Board have only acted upon what they considered, albeit wrongly, sound business principles. Many of us have taken considerable trouble to obtain these appointments, and if the pay was small and the work heavy we knew the conditions beforehand, and it presumably suited our purpose at the time to undertake the duties. Those who have a just cause for complaint are not the incumbents of these appointments, but those who remain outside and have to compete with the low remuneration offered by this combination of clubs. The Medical Institute has always been a stumbling block when any reform in club practice has been attempted. The cry has always been, why punish men for taking lodges at a low figure when medical officers of the Oddfellows flourish unhurt? The argument was unanswerable, but it was felt that it would be very hard upon these men to throw them out of their billets without offering them compensation, and no funds were available for such purpose. It happens that the Board has just now dismissed two of its medical officers—rightly or wrongly does not concern us now—and we consider that now is our opportunity for taking action. Those applying for the vacancies should take notice that they do so with the full understanding that they may be called upon to resign should such a step unfortunately become necessary. With regard to the two medical men remaining in office. We trust that the consciousness of suffering in a good cause, and the gratitude and esteem of their brother practitioners will be regarded by them as some compensation for the loss they sustain in throwing up their appointments if called upon to do so.

The speaker then moved—"That this meeting views with disfavour the combination of Lodges and Benefit Societies to form Medical Institutes and Dispensaries, paying their Medical Officers by salary instead of *per capita*, and thus obtaining their services at a rate per member considerably below the minimum agreed upon by the Profession."

Dr. RENNIE, in seconding the resolution, said it must be remembered that the Medical Institute of the Manchester Unity was founded on different lines to those dispensaries more recently established, inasmuch as the Institute was not in the first place commenced with the object of cutting down the medical fees, while those dispensaries started later had no doubt the one object in view of obtaining the medical services at a reduced rate.

The Hon. Dr. NASH said that to his mind the whole crux of the question rested with the third resolution which was to be moved later. If the whole of the medical men of the City combined with the object of making a stand against the Friendly Societies there could be no doubt that they would be successful; it must, however, be remembered that in these societies there were men of good business tact, and that by their efforts the societies were enabled from time to time to add to their accumulated funds.

The resolution was then put to the meeting, and carried.

The CHAIRMAN now called upon Dr. Worrall to move the second resolution.

Dr. WORRALL said that the first point he desired to emphasise was the importance of unanimity, without this they were powerless, and the responsibility of failure would rest upon those who determined to pursue a selfish course regardless of the commonweal. The opportunity which now presented itself of successfully combating a great evil would not in all probability recur. When he said "evil" he meant it was an evil not alone to the medical profession, but also to the members of the lodges concerned. From close personal observation he could say the members of the Manchester Unity, I.O.O.F., were the worst attended of all the lodge patients in Sydney, and the reason was the iniquitous system in force. The conscientious medical officer who never spared himself in endeavouring to cope with his unceasing duties found himself reduced to a condition of white slavery, and received no greater remuneration than his careless colleague, who did as little as he possibly could. If the members of these lodges only knew their true interests they would unanimously endorse the request of the profession in this matter. The question was one which concerned not alone the junior members of the profession, but also all those who had sons who might adopt the medical profession as a career. If the medical officers of the Oddfellows' Institute were paid *per capita*, as suggested in the motion, its members would support six times their present number of medical officers. When on previous occasions attempts were made to check the formation of similar institutes, they were met by the question, "why do you not attack the Oddfellows' Institute?" Well at last the psychological moment had arrived. It was undoubtedly a tide in the affairs of the profession which taken at the flood might lead, if not to fortune, certainly to a remuneration more in proportion to the work, and also by reason of the better quality of work tend to raise the profession in the estimation of the public.

Dr. WORRALL then moved—"That the Profession hereby agrees to support the Council of the New South Wales Branch of the British Medical Association in any action it may take in order to induce the Medical Institute, I.O.O.F., M.U., to pay their medical officers at a rate in accordance with that already pronounced by the Profession to be a minimum for lodge attendance in Sydney."

Dr. JAMIESON, in seconding the resolution, said he thought it outrageous that the small remuneration now being paid to the medical officers of the Manchester Unity should continue. The present time was very opportune, seeing that there were two vacancies to be filled up. An effort to bring the amount up to the 16s. minimum should now be made. A very vigorous effort should be made to deal with societies just starting. The conduct of the Council during the past year in dealing with such matters commands confidence, and he did not think the meeting could do better than to leave this business in the hands of the Council.

Dr. MEGGINSON said that the resolution did not state any details as to what the Council should do. He thought that those men who were losing their positions in these lodges should be allowed to be reappointed unopposed. He certainly should refrain from applying. As there were seven lodges included in the Medical Institute, he thought that it would be better to deal with each lodge separately. The question of the hour up to which messages should be left was one which was of importance to the lodge doctor.

Dr. CLARENCE READ suggested that a circular be sent to all reputable practitioners urging upon them the need of assisting in this movement, and also of abstaining from any appointment rendered vacant, owing to the efforts of the lodge doctors to improve their positions with the various friendly societies.

Mr. G. T. HANKINS said he thought that the applications for the vacant positions in the Manchester Unity should be allowed to proceed, with the understanding that the successful applicants might be asked to resign, should such an extreme measure become necessary. As secretary to the Council of the N.S.W. Branch he had been in communication with the secretary of the Medical Institute, asking for a conference on the subject in hand, and the matter had been referred to the Medical Board, which would meet early in April.

Dr. BINNEY said he did not know whether this resolution bound the Council to deal only with the Manchester Unity. He thought that there were other societies requiring reforms just as much.

Dr. GREGORY O'NEILL said it had come to his knowledge that the Sydney United Friendly Societies intended to combine and have five or six medical officers at a salary from £300 to £400 per annum, and that those medical officers would not be allowed to have private practice.

Resolution 2, as follows, was then put to the meeting, and carried unanimously:—"That the Profession hereby agree to support the Council of the N.S.W. Branch of the B.M.A. in any action it may take in order to induce the Medical Institute, I.O.O.F., M.U., and if necessary, any other kindred institute to pay their medical officers at a rate in accordance with that already pronounced by the profession to be a minimum for lodge attendance in Sydney."

Dr. A. M. GLEDDEN said he had much pleasure in moving the third resolution on the business paper. At the meeting of the Investigation Committee on the 8th of March, a resolution was passed asking the Council to submit a similar resolution to this at the annual meeting of the Branch to be held next week. However, on the 11th of March the Manchester Unity gave two of the medical officers connected with that institution one month's notice that their services would no longer be required. Under the circumstances it was thought desirable to take steps to form a Society of the Medical Officers of Friendly Societies. During the past year the profession has had experience of what can be done by combining. The Australian Natives Association so far as is known only has one medical officer, and the Sydney Clerks' and Warehousemen's Benefit Society has accepted the terms laid down by the Council. So that something definite might be done, he (Dr. Gledden) would like to add to the resolution the following words:—"That a provisional committee consisting of Drs. Binney, Clarence Read and the mover, be appointed to carry out the details of this resolution."

Dr. CLARENCE READ seconded the resolution, and said the idea was to have a society of those gentlemen holding lodges and clubs, and that they should frame rules and inquire into cases, and then report to the Council of the British Medical Association.

Dr. ARTHUR said the Investigation Committee had been appointed to do this work, and he thought that if the new society were formed it would to a certain extent clash with that Committee.

Dr. SINCLAIR GILLIES said he did not altogether agree with the idea of a society for lodge doctors. A great deal of difficulty in the past had been caused by those men who were not lodge doctors, but who desired to become so. He thought it would be better for the Council to say what could be done and what could not be done, and deal with those who would not fall into line. There could not be any doubt that the main danger was from outside the ranks of the lodge doctor.

Dr. THRING said it appeared to him that there was some body necessary to voice the abuses from which the lodge doctors suffered, and he thought such a body as had been suggested would do the work well. It was not intended to run counter to the Council, but it would materially help the Council to be able to get help in this way from the very men who were interested.

Dr. BINNEY said he thought it would be necessary in some instances to act without the Council; when vacancies arose in the various lodges it might be found quite practicable to raise the lodge rates without reference to the Council.

Dr. JAMIESON suggested the following amendment—"and those members of the profession desirous of doing such work."

The proposer and seconder accepted the addition, and the resolution as amended was then put to the meeting, and carried.

Resolution 3—"That the medical officers of Friendly and Benefit Societies, and those members of the profession desirous of identifying themselves with such work be recommended to form themselves into an Association, with the object of improving their relations with the lodges and securing the co-operation of the members of the British Medical Association and the Profession generally in attaining their end."

"That a provisional committee, consisting of Drs. S. Pinney, Clarence Read and the mover (Dr. Gledden) to carry out the resolution."

A vote of thanks to Dr. Fiaschi for presiding at the meeting was carried by acclamation.

LETTERS TO THE EDITOR.

USE OF COCAINE IN TOOTH EXTRACTION.

(To the Editor of the Australasian Medical Gazette)

Dear Sir,—Last Sunday (10th March), I had occasion to extract a number of stumps from the upper jaw of a patient, from whom a fortnight before I had performed a similar operation. On the first occasion I used a 1 p.c. solution of cocaine, injecting 30 minims into the gums without giving much, if any, relief from pain.

On Sunday last I injected a ¼ of a grain of cocaine tincture into the gum where it seemed most tender. After waiting ten minutes I repeated the dose, the gums being apparently in no way anæsthetised by the ¼ grain. Within two minutes the patient, a healthy woman of 30 years, was in a most alarming state, her colour suggested syncope, her respiration became very rapid and shallow, and her pulse rapid and fluttering. Her condition was so alarming that I passed a very wretched quarter of an hour. I administered an ounce of Sp. Am. Co. in small doses, frequently repeated, did artificial respiration, and in order to promote bleeding, extracted a number of stumps, which caused free bleeding from the gums as she lay on my couch. It was fully an hour before she ceased sighing and complaining, having been more or less unconscious most of the time.

My object in reporting this unpleasant little affair is to elicit if possible, some comment from the profession as to the advisability of using cocaine for painless tooth extractions. The local chemist, who is the favourite extractor in this small district, uses it in every case, and he tells me that he has never had a case which has caused him anxiety. He informs me that "in Sydney"—or to be accurate—"in Newtown it is used wholesale by the dentists."

I trust in mentioning the case to my rival practitioner the chemist, I was not prompted by malice. I told him that in my opinion if he should chance to meet death in his cocaine practice he might be mulcted in heavy damages, apart from the criminal aspect of the case, since he has no license to kill.

I shall be glad to learn how the business aspect of the question occurs to my more learned brethren.

I am, Sir, etc.,

17th March, 1901. COUNTRY G.P.

FEDERATION FOR MEDICAL DEFENCE.

(To the Editor of the Australasian Medical Gazette.)

Sir,—It is cheering to see that the British Medical Association is at last seriously considering this subject. It is, I hope, pretty certain that the British Medical Association will not repeat the mistake made by the Medical Defence Association of Victoria, about a year ago, when they threw themselves at the feet of the Medical Benefit Societies, and implored their mercy for the profession. They received their answer, "Get you to your burdens" said the Medical Benefit Societies, and we got.

The form of agreement sketched in your columns present many advantages over that at present in use. It is almost identical with that issued by the Medical Defence Association shortly after the fiasco alluded to, though it does not appear that they took any steps to secure its general acceptance, either by the profession or by the lodges. It's most important feature is the income limit. Suppose the lodges concede that (which there is very good reason to doubt), how is it to be enforced? We should have to establish a regular inquisitorial system, like in use in the revenue office for collecting the income tax, and I cannot believe that any lodge-members will submit to that. But to obtain an improved agreement of any kind will necessitate a hard fight. Why not then fight for something better worth having, and go straight for the total abolition of contract practice? The American system, by which the lodges allow their members to employ any doctor they please, and pay him his usual fees works very well in America, and there is no reason why it should not work equally well here. But before we can obtain any amelioration of our lot, whether in the form of an improved agreement, or deliverance from contract practice altogether, we must federate. Federation must be universal, and as, apparently no check can be put upon the greed of the Universities, which continue to turn out young doctors by hundreds in excess of the demand, some means must be found to compel these young men to come in. The idea of local branches of the Medical Defence Association, or the British Medical Association, or both, is a very good one, and has succeeded well as far as it has gone. But it is of no use for local practitioners to try to work up branches for their own districts. Their own work is, as a rule, sufficient for them, and being perforce holders of lodge appointments, are regarded with suspicion by their neighbours, and they, for the most part, heartily reciprocate the feeling. The only way of federating the profession on these lines is by means of a paid canvasser or agent sent out by the council of one or both of these associations, who will have authority to enlist members and receive subscriptions and will be able to give his whole time to the work. This will cost at least £400 a year, that is to say £200 to £250 a year, and 10s. a day for expenses. It will probably cost more than that but it will be well worth the money. Besides enlisting members and receiving subscriptions, the agent should keep a black list of those who refuse to join, to be dealt with by the councils of the two associations. In time, I have no doubt their number will become less, till it reaches the vanishing point.

I need not further elaborate this scheme, which I have no doubt will be well thought out and put into execution by the authorities. I am a member of both associations, and if any agent calls on me respecting the formation of a local branch, he will find me a willing member and helper.—I am, etc.,

Q.

"GNATS AND MOSQUITOES."

(To the Editor of the Australasian Medical Gazette.)

Dear Sir,—As the entire edition of my recently published hand book on the above subject is sold out, permit me to inform those requiring copies that a new edition will be ready in May or June.

In spite of the short time that has passed since the issue of the first edition our knowledge has so grown that much of the first, or general part must be almost rewritten, and hence I have decided to make an attempt to bring the new issue up to date.—Yours very truly,

G. M. GILES,
Lieut. Col. I. M. S.

Shahjahanpur, India,
19th January, 1901.

NOTICES.

Original Articles will be inserted solely on condition that they are not contributed to any other periodical.

All communications intended for publication may be addressed "The Editor, Australasian Medical Gazette, 121 Bathurst Street, Sydney," or to the Branch Editors for the other colonies.

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EDITOR'S LIBRARY.

The Library of the Editor of the "Australasian Medical Gazette," 121 Bathurst Street, Sydney, is now open to all Members of the British Medical Association, from 2 to 5 p.m. every week day, holidays excepted.

SPECIAL NOTICE.—**Original Articles for insertion in this "Gazette" should reach the Editor on the 3rd, other communications not later than the 7th, and corrected proofs on the 12th of each month. Failing this, the Editor will not be responsible for non-insertion or printers' errors. Very lengthy communications will only be inserted when space permits.**

THE AUSTRALASIAN
MEDICAL GAZETTE.

Edited for the Proprietors by
SAMUEL T. KNAGGS, Sydney, N.S.W.,;
and for the other Branches of the
British Medical Association by
A. B. BROCKWAY, Brisbane, Q.; H. W. BRYANT,
Melbourne, Vic.; J. B. GUNSON,
Adelaide, S.A.; and J. MASON, Otaki, N.Z.

SYDNEY, 20th APRIL, 1901.

EDITORIALS.

THE ADELAIDE HOSPITAL.

Last month, under the above heading, we inserted the following paragraph (page 122):—

"It is believed that the long-standing Adelaide Hospital trouble has been settled. Dr. Verco and Dr. Hayward, two of the old staff, returned to the hospital recently. His Excellency the Governor in Council has been pleased to accept the resignation of William Ramsay Smith, Esq., M.B,, M.S., as Honorary Physician at the Adelaide Hospital, as recommended by the Board of Management of that Institution."

A correspondent in commenting upon the above, writes, as follows:—"It is quite correct that Drs. Verco and Hayward returned to the hospital recently, and that Dr. W. Ramsay Smith has resigned his appointment as Hon. Physician. It would be well, however, for you to define the situation more clearly in your next issue."

In compliance with this request we wish to state as follows:—

A year ago, with the general agreement of the profession in Adelaide, the University nominated a staff to work half the hospital for the Medical School, then defunct as far as hospital practice was concerned, the Government promising to appoint them.

The Staff so nominated consisted of:—Drs. J. C Verco and W. T. Hayward, physicians; A. A. Hamilton and A. Swift, assistant physicians; B. Poulton and W. A. Giles, surgeons; Cavanagh-Mainwaring and Melville Jay, assistant surgeons; M. J. Symonds, ophthalmologist; E. W. Way, gynæcologist; J. A. G. Hamilton, assistant gynæcologist.

Immediately this was arranged the Government unexpectedly gazetted Dr. W. Ramsay Smith as hon physician, with the result that the University staff promptly and unanimously declined to accept office, and refrained from entering upon their duties till now. In February, 1901, the Government intimated that Dr. W. Ramsay Smith would resign, that Dr. Leith Napier would be removed, and that it wished the University staff appointed in 1900 to accept office, and take over the wards of about half the hospital.

This was agreed to. Dr. W. Ramsay Smith resigned and went to Africa, Dr. Leith Napier was given six months leave and was appointed gaol surgeon and assistant at the lunatic asylum, the re-appointed staff being given to understand that he would, in all probability, retire at the expiration of his term. The staff all agreed to go back, Doctors Verco and Hayward accepted office at once and took over the wards vacated by Dr. W. Ramsay Smith.

The rest of the staff went back as soon as details were arranged, and the members are now working at the hospital. The Board has appointed two additional house surgeons, Drs. Roseby and Verco (both Sydney graduates). Half the wards are still under the control of hon. physicians and surgeons appointed during the last five years. There is now a possibility and strong probability of the hospital gradually regaining the status and position it once held so well in general and professional estimation, but it will be a long time before things settle down and proper discipline and order prevail. The original trouble began through the insubordinate action of nurses on the staff, and the present government of the place and constitution of the nursing staff do not agree well, but relying on the teaching of experience it is quite possible that with patience there is yet hope for a radical reform. It is, therefore, to be distinctly understood that the return of Drs. Verco and Hayward to their duties at the hospital was part of a concerted action and not an independent move.

MEDICINE IN THE GUTTER.

"SALTIMBANCOES, quacksalvers, and charlatans deceive the vulgar."—Sir Thomas Browne.

THE "prating mountebank" has a place in all communities, savage and civilised, and the blatant announcement of his wares has resounded from the gutter in all the centuries. His following has not been limited to the humbler classes, although these, owing to a lower level of education, have suffered most from his charlatanry. The "vulgar" whom the author of the *Religio Medici* refers to in the above quotation, include all common, unequally-cultivated minds of all grades of society; and as many a modern instance can shew, by no means excludes the *soi-disant* cultured sections of the community.

It is little wonder that such a favourable environment has kept the quack genus in life from generation to generation, and that, allowing for natural variations of physiognomy, we can trace the representative of the family among us at the present day. He has given up his wonted place at the street corner. His means are now the printing press and the penny post, and through these he showers his literary productions on doctor and layman alike. Last indignity, of all, he has even aped the office of the editorial chair, and the profession is now treated to a daily supply of periodicals. under such captivating names as the "Uric Acid Monthly," a "Summer Pamphlet from the —— Pharmacal Co., "Gleanings," the "O.D. Quarterly," and so on, *ad infinitum.*

A very large proportion of this literature comes to us from our cousins over the Pacific. The Americans are a great people; we may even say, though not we fear in an Old Testament sense, a *peculiar* people. They can fly high like the lark, and low like the swallow before a shower. The present issue, in which we feel called upon to protest against pamphleteering quackery, contains a review of an American work that might do honour to any country. Such are the lights and shades of American professional life!

It appears that the canker is widespread. The number of qualified men who contribute testimonial letters in favour of this or that proprietary remedy is astonishing. The spontaneous heartiness of their effusions is worthy of a "testifying" Salvation Army brother. In making the comparison, we think we are not unjust to the intellectual standard of the doctor or the brother. Not less wonderful is the long line of *Professors* that America is able to muster. In the States, the medical profession appears to be composed for the greater part of professors, with here and there a general practitioner; just as the army has been averred by one of their own writers to comprise mostly colonels, with a small sprinkling of privates. And what practitioners are left, not professors, can at least lay claim to the dignity of *consulting physicians, presidents* or *ex-presidents* of this, that or the other, greater or greatest, medical association.

For the information of readers who have perchance not shared the privilege of sitting at the feet of these Gamaliels, we may be permitted to cull a few flowers of literature, as it is cultivated in the Great Republic.

An *Ex-President* and *Professor* speaks thus on summer diarrhœa:

> "Experimentation is at all times risky; and particularly so when dealing with infants, and doubly so when the experiments are not conducted by an expert experimentalist."

Again,

> "We should bear in mind the antiseptic thought."

Again,

> "Above all things, let it (the child), be kept away from the heated body of the nurse or mother, who, in addition to elevating the temperature of the child by contact with her own personality (!), will, more than likely after each filling up with milk, proceed in an affectionate way to trot it up and down, from side to side, and in a generally gymnastic way exercise her motherly muscles,'

and so on. In the same pamphlet another *Professor* treats us to his method of preventing cholera, used in his own case—on his own *personality* in fact:

> "I was a temperance man in those days,"

but under the stress of an extensive cholera practice, the abstemious habit was naturally enough modified, thus:

> "I found I could not live without some powerful

stimulant. The brandy we had in those days was the pure article.'

He found that

> "nothing less than three or four wineglasses full of French brandy"

per diem would meet his case;

> "I never had a symptom of cholera until I stopped taking the brandy."

In another pamphlet, one Chicago physician assures us that a certain nostrum

> "is the best agent in the very best sense of the word best."

Is further witness required?—another Chicago man finds it sovereign in a disease which has caused much anxious thought in America, called *Pre-Senility*,

> "it is unexcelled as a vitalising tonic to the withered glands of the reproductive system."

To a third Chicago man we are indebted for the following:

> "in loss of virility in a man of middle age the desired effect was complete!"

And a voice from New Orleans follows thus. Here it behoves us to ponder deeply, for we are listening to no less an authority than the *Visiting Physician to the Shakespeare Alms House.* He testifies,

> "in young females with lack of bust development, I have found its continued use for three or four months prove decidedly beneficial in increasing the size of the mammæ."

The latest piece of quack journalism is the *Uric Acid Monthly*, and not the least contemptible, as it comes in the guise of a respectable periodical; it is honourably associated the name of the ——— *Chemical Company* We will not continue quoting, however, desiring as we do to leave the privilege of peroration to the official representative of the Shakespeare Alms House.

To put jesting aside—we would first warn any injudicious colleagues on this side, that in even seeming to encourage such chicanery they are playing into the hands of money grubbing commercial adventurers; and secondly, appeal to the more enlightened sections of the profession in the United States, to endeavour to stem the current and rescue the noblest of professions from degradation to the meanest of trades. Americans have done great work in past times; they are doing it in the present. A great truth is sweetly sung by the poet in these words—

> "From lowest place when virtuous things proceed,
> The place is dignified by the doer's deed."

This truth has its converse exemplified (alas! "the pity of it!") by a large section of the medical profession in the Great Republic.

HOSPITAL ABUSE.

THE question of hospital abuse, like that of the poor, is ever with us. And yet it would be idle to deny that the subject at present does not exact the slightest interest from any but the members of the medical profession. The great body of the general public is either perfectly ignorant or perfectly conscienceless about the matter. The outcry against the misuse of public hospitals comes only from a small section of those who are concerned. Medical men are, undoubtedly, the chief sufferers from the existence of such a state of affairs, but all those who give money to a medical charity under the belief that their contributions will go to the relief of destitute sick persons, should be concerned to know that the money is not being diverted to some illegitimate use.

It is probable that the majority of the subscribers to public hospitals do not realise what hospital abuse means. And so accustomed are they to expect that doctors should on any or every occasion give their services for nothing, that the question of abuse, from the medical standpoint, would not appeal to them in the least.

It will, therefore, be wiser for the medical profession, however sore they may feel on the subject of the injustice done to themselves, to leave that aspect severely alone. Were they to air their grievances, they would probably be met with the reply that it was perfectly optional for them to be on the staff of the hospital at all.

On the other hand, let the man who gives his guinea or two every year once grasp the idea that he is helping to provide hospital accomodation and nursing, not as he vainly imagines, for indigent patients, but for his neighbour, who is as well or better off than himself, and he will soon want to know the reason why. If he found out that this same neighbour was receiving bread and blankets from the local Benevolent Society to which he was a subscriber, his contempt for the recipient of charity and his indignation against the Society that would administer its funds in this manner would know no bounds.

Once the average man realises that there is no inherent difference between these two forms of charitable abuse, he will become very much alive in the matter of hospital reform. It is necessary, then, to educate the public, to open their eyes first to the existence of the abuse, and secondly, to develop the public conscience so that it will be regarded as a shameful and dishonorable act to obtain medical treatment in a hospital if one can afford to pay for such attendance outside. But before this development of the public conscience can come about, the managing boards of the public hospitals must take a step which will render it possible. This is the abolition of the system of payment by patients. As long as a man is asked to pay a certain sum per week while in hospital, so long will he believe that he is one of the parties in a commercial transaction, and that he is paying for all he gets. This is an entirely vicious system, and no advance can be made until it is done away with.

But there are other means which can be taken advantage of. There is no reason why this matter should not be ventilated in the Press. Nowadays no question can hope to obtain public attention unless it is given a prominent position in the newspapers. And the charge of advertising could hardly be brought against a medical man who should take up a lance on behalf of his profession, and in order to draw attention to a gross mismanagement of public funds. Many editors, too, would be willing to emphasise the subject by leading articles, and thus the educational process would start.

Until some such proposals as these are acted upon, the medical profession may rage and complain among themselves to their heart's content, but they will effect nothing, and hospital abuse will go as merrily as it does at present.

A FOREWARNING REGARDING THE BOER WAR.

At this juncture, as the Boer war is sluggishly drawing to an end, it may be interesting to reprint a letter which was published in the Sydney *Daily Telegraph* of 20th September, 1899, exactly nineteen months ago. Now that papers, pamphlets and books upon the Boer war are being published, and statistics show that pestilence, disease, want of prompt hospital treatment and careful nursing caused more deaths than the enemy's bullets, it is much to be regretted that the suggestions contained therein did not receive prompt consideration at the hands of the authorities.

"How to Assist British South Africa.

"*To the Editor.*

"Sir,—The impending war between Great Britain and the Transvaal has excited the same patriotic feeling in New South Wales which a few years ago culminated in sending a contingent of troops to the Soudan.

"It, however, would be well for those in authority to pause and consider if it would be judicious and justifiable to denude this colony of the pick of the forces, which were originally formed for the protection of our country, families, homes and property.

"Once this war shall have commenced, it will be impossible to predict where it shall extend or when it shall cease. There are some envious nations, jealous of England's magnitude, power, and greatness, who would take advantage of such a war—the very cosmopolitan nationalities of those who may fight for the Transvaal—may set up international complications, and cause the flame of warfare rapidly to spread throughout the fighting world. Those other countries which are on the alert would thankfully accept England's difficulty as their opportunity. It would then be too late to recall the fatal error which shall have been committed, should our defenders be absent in Africa.

"If our patriotism requires an outlet, this imperative feeling would be more judiciously gratified, and tend to an almost similar consummation by this colony fitting out and equipping a field hospital complete in every respect, including medical officers, nurses and bearers.

"The modern destructive appliances of warfare are such that, in large engagements, masses of soldiers are mowed down by machinery, killed, mutilated, and some only trivially injured.

"Shell and shot do not do all the killing in a campaign. Pestilence, disease, bad commissariat, and hardship add no small quota of fatality.

"It is quite possible that prompt treatment of slight wounds and the early checking of diseased conditions would be invaluable in facilitating the early return of indisposed or injured men to the fighting ranks. Were it thus possible to restore to the ranks two per cent. of the 50,000 of troops that may be engaged in this war, it would be equivalent to fitting out, equipping and shipping 1,000 men to the seat of war.

"Were this suggestion approved, and an appeal made for twenty surgeons, fifty nurses, and thirty bearers, I feel confident that within twelve hours there would be such a large number of volunteers that some embarrassment would be caused in making a selection.—Yours, etc.,

"Samuel T. Knaggs.

"5 Lyons'-terrace,
"Sydney, September 19, 1899."

MEDICAL CRITICS ON WARFARE.

◆

IN another column (page 158) will be found an exhaustive review of Dr. Scot Skirving's brochure, "Our Army in South Africa," just published by Messrs. Angus and Robertson, of 81 Castlereagh-street, Sydney.

We congratulate Dr. Scot Skirving on the courageous and outspoken manner in which he has exposed many of the shortcomings and errors into which, in his opinion, the British authorities have blundered in the conduct of this campaign. He considers that the chief fault appears to have been in underrating the resources and staying power of the enemy, notwithstanding frequent warnings and reliable information afforded upon that subject. He states that this underestimation of the capabilities of the enemy led to early disaster amongst the insufficient number of British troops, and the calamity after calamity that followed not only encouraged the Boers, but led to further adversity from pestilence and disease. The capabilities of a somewhat inadequate Army Medical Corps were put to the fullest test, and in some respects were found wanting. All these matters are fully discussed by Dr. Scot Skirving, and there is not the slightest doubt but the full and fair discussion of all the threads and tissues of these subjects will ensure the construction of a better war fabric for future use.

Similar criticism regarding the Hispano-American war has appeared in a publication in America of a reprint from the *Journal* of the American Medical Association, a series of war correspondence letters by Dr. Nicholas Senn, a very nice crown 8vo. edition of 282 pages.

This book is from the pen of an eminent surgeon who was present at Cuba during the late war, and whose competence for forming an opinion cannot be gainsaid. He gives an instructive, interesting, curious, and most amusing relation of the peculiar military condition of the volunteers—officers and men—of the American Army of Volunteers hastily enrolled to participate in this war. His impression is that had such an undisciplined mob encountered a regular army, nothing but disaster could have resulted.

It was his first duty as medical head of the volunteers to form a medical staff—five medical officers for each battalion. This was done by advertisement, careful physical examination, and practical inquiry into candidates technical knowledge. To compensate for military experience, hasty instruction was briefly given in the elements of military duty and camp hygiene.

Recruits were then vaccinated, having first been rapidly put through a piecemeal physical examination in a most ludicrous manner. Primarily they were reviewed at first sight, all wasters roughly excluded. Then a more careful inspection was made, as it were, in segments. One medical officer examined the chest, a second the eyes and ears, a third the mouth and neck, a fourth the extremities and abdomen; finally, a fifth at a general glance judged as to "general aptitude for general service." No standard was used as a guide.

Thus were from 800 to 950 examined daily, until a total of 9899 was reached, with the rejection of 10 per cent. Shades of army examination! Know ye that these candidates were examined, judged, passed, or rejected at the rate of three a minute! It is problematical how many bad bargains slipped through, who at the termination of the war swelled the American pension list from diseases supposed to have been "contracted in and by service."

As may be expected, these volunteers, when massed in camps, with imperfect equipment and bad weather, soon contracted sickness. The diseases were "cerebro-spinal meningitis," "typhoid fever," and "septic pneumonia." With such masses of raw material, there was much confusion and lack of discipline in these camps.

The military officers of the United States regular army were highly competent, but those of the Volunteers, especially those pitchforked from civil life into military position by political interest, became subjects of ridicule, especially those who received sudden jumps from second lieutenant to lieutenant-colonel, which was considered somewhat beyond a joke. In fact, Dr. Senn says:—"Major-generals were in abundance, brigadier-generals by the dozen, colonels turned out by the hundreds." Many of these latter in the gayest of gay uniforms, could not handle a musket to save their lives, much less command men, and some were seen mounting their horses from the wrong side! With such an incredible state of affairs, can we wonder, with breakdowns, confusions, and chaos, that anything was accomplished at all? Truly, the patriotism, versatility, and practical ability of the American people must be unbounded to make headway under such circumstances.

Dr. Senn comments upon the "qualifications and duties of the military surgeon," and he found that the ideal, good all-round medical officers were not as plentiful as blackberries. He considers that the essential qualities in these officers are:—Liberal general and professional education, good physique, courage, ready resource, mechanical handiness; he should be a man of the world in general social fulness and wide culture, and above all he should be embued with the true "military spirit," or he has no business in the army.

The invasion of Cuba was "characterised by hasty action, a lack of organisation, and inadequate preparation." Yellow fever and malaria in two weeks laid down 500 men, and so rapidly spread as to rapidly reduce the fighting powers of the invaders. Had not Santiago surrendered, a dreadful catastrophe would have overwhelmed the American forces. Notwithstanding that in the subsequent invasion of Porto Rico, the errors of Cuba were rectified—yet typhoid fever prevailed, the sufferings of the troops increased, and the Americans were desolated, not by shell and shot, but by hardships, sickness, and deaths. The adverse climatic influences in Cuba were greatly aggravated by inadequate and improper food. The casualities of the war from the enemy are estimated at no more than 280 killed, or who died from wounds, and 1425 wounded.

Regarding the surgery of the war, the small Mauser bullets (Spanish, same as used by the Boers) caused clean flesh wounds, which soon healed, because they carried no clothing or other infective matter with them. Bones were cleanly penetrated without fracture. Meddlesome probing was prohibited. The Roentgen rays and dissections induced rapid recoveries.

Dr. Senn pays warm tribute to his medical officers and nurses, both male and female, for their unexceptional devotion, courage, and unselfish work in camp, field, and under fire. What more could have been expected?

CIVIL AMBULANCE AND TRANSPORT BRIGADE OF NEW SOUTH WALES.

◆

Successful First Aid Students.

The following is the list of members of the Civil Ambulance and Transport Brigade to whom certificates or brigade warrants have been granted during the past year:—

The Ladies' Company.—Isabel S. McLaughlan, Lillie McLaughlan, Florence Sheridan, Lizzie Goldspring, Eleanor Wallis, Mattie Jackson, Bee O'Keefe, Florence Cunningham, Addie Dean, Nellie Brown, Maggie Wauhope, Christina Carmichael, Emily Schulstadt, Jean McNamara, Marion Binder, Isabella Hunter, Emily Waller, Ada Jeffries, Sara J. Isaac, Charlotte Davies, Stella West, Nellie Bourne, Edith Green, Mary Miles, Charlotte Cox, Annette Irwin, Jane Starkey and Maud Rhodes.

Rockdale Ladies' Class.—Annie Jeffrey, Sarah Llewellyn, Harriet Cope, Isable McBride, Ethel M. Jarvis, Annie Sinclair, Mary H. Morton, Marion Cousins, Annie McNeill, Annie McNamara, Nellie Thomas, Jessie Wailes, Keziah J. Arnold, Lydia May Hancock, Nellie Wailes, Emily Kleman, Mary Ann Griffiths, Christina Mary Gwymer, Mabel Small, Daisy Clayton, Stella Porter and Bertha Schey.

Balmain Ladies' Class.—Lilla Sherring, Elizabeth McCarthy, Florence Buddle, Jessie Davidson, Mary Gurr, Ettie McDougall, Mary Hussey, Alice Templeton, Mary Walke, Mary Pengelly, Mabel Peters, Nellie Rodger, Hanna Gray, Florence Nutt, Florence Chidgey, Isa McLintock, Agnes Pirie, Jessie Shade, Isabel Deake, Jennie Jolly, Katie Myles.

St. Peters Ladies' Class.—Amelia L. Roger, Ada Florence Andrews, Ethel May Brian, Grace Violet Pampillonia, Sarah Ann Wedge, Alice Maude Ivory, Lilian Jane May, Bella Dudgeon, Mary Cooper, Mary E. R. Mason, Sarah E. J. Eggleton, Ada Chappell, Elizabeth Mason, Annie Lilian Baker, Beatrice M. A. Gearside, Martene Dorothy Warner, Ethel M. Tattersall, Mary Jane Ramage, Charlotte Harris, Elizabeth M. Cochrane, Lillian Sarah Rossiter, Marie Dorothea Kracht, Annie Marie Morgan, Fannie Witcombe, Emily Griffin, Cecilia Talbot, Ellen Marion Prowse and Elizabeth Walshaw.

The Brigade Headquarters Ladies' Class.—Hannah Carmichael, Ethel Franklin, Bertha McLean, Mary McSweeny, Amy Dean, Lena Downie, Lillian Gordon, Edith Griffiths, Annie Glasscock, Ethel Hodgkinson, Florence Rutherford, Lizzie Spring, Nellie Allexander, May Dean, Annie Gordon, Rosa Griffin, Grace Lee, Mary O'Keefe, Elizabeth Lester. Jessie Watkins, Emily McLean, Lila Whitney, Emily Griffin, Mary Peel, and Annie Standen.

University of Sydney Engineering Students.—J. Montagu, C. Corlette, James Malcolm Newman, Arthur Jarman (hon. secretary), James Horsburg, Henry Wood, H. Warlow Davies, R. Norman Dart, Lloyd S. Gorringe, Herbert Edwin Whitfield, John J. Garvy, Harold A. H. Brooks, Alfred B. Docker, D. C. Mawson, Charles C. Freeman, John Verge, C. F. de Jersey Grut, Cyril H. Clayton, Percy H. Dunstan, David Thomas, H. Stuart Wiegall, Phillip Caro, G. Harkes, G. C. V. Heden, Leslie B. Williams.

Great Cobar Copper Mine Class.—Victor Hooper, John Griffiths, Henry Wilde, Joseph Hodges, Charles Hart, Charles Thomas, Edward Charlesworth, Hugh McLean, Andrew F. Anderson, and A. T. Harrington.

Rockdale Men's Class.—Robert H. Wells, William J. Mason, F. Allan, Andrew Schey, H. G. Skelton, H. Ingham, T. B. R. Perry, John Richardson, S. Griffiths, Michael Hegarty, H. Goldman.

St. Peters Men's Class.—Henry P. Fearnside, Hartley Hook, W. McSkimming, William Walker, William A. Barnett, George Farr, Henry G. S. Austin, Walter L. Mellor, Charles Brown, Alfred Doran, Edward J. Garfield, James S. Garfield, James Penfold, Stephen Jarman, Francis Sanderson, Frederick Brown, Walter H. Lambeth, George Ede Grantham, Edwin Spackman, William C. Whitby, Vincent Pampillonia.

Boys' Brigade Class.—James Bryce, Reginald Stephenson.

Official Brigade Warrants.—Miss M. A. Wauhope, Miss Mattie Jackson, Miss Lizzie Goldspring, Miss Maude Rhodes, Mrs. Jane Starkey, Miss Christina Carmichael. Mrs. Charlotte Davies, Miss Ada Jeffries, and Messrs. Arthur West, George H. Williams, John Griffiths, Horace N. Buddle, Richard J. Thorpe, Charles H. Barnes, Arthur J. Toyer, John I. Schofield, William J. Spears, Walter Macdonald Ford and V. Pampillonia.

The students were instructed and examined according to the Brigade Syllabus, approved by Professor Anderson Stuart, M.D., by members of the British Medical Association.

CONCENTRATED MILK FOOD.

We have received from Messrs. Morgan and Smith, of 24 Clarence-street, Sydney, a sample of unsweetened condensed Romanshorn milk.

This milk is guaranteed as being absolutely pure, and contains no preservative whatever. As an infant's food it stands pre-eminently above all other preparations because of its absolute purity and exceedingly high nutritive properties. This milk is used in the Children's Infirmary in England and on the Continent, and having tested it we can highly recommend it. Its use will be invaluable during epidemics of infectious diseases, such as typhoid, scarlet fever, diphtheria, and the long train of other ailments so frequently traced, and due to milk supplied from dairies, cowsheds, etc. The method of preparing this milk being such as to prevent the possibility of any fungoid germs being generated.

OBITUARY.

The deaths of the following medical practitioners are announced:—

Patrick Francis Gleeson, M.B. Melb. 1889, late of Fitzroy, Vic.

Frank Montgomerie Peebles, M.B. Melb. 1889, late of Bendigo, Vic.

Samuel Reynolds, M.D. St. And. 1851, M.R.C.S. Eng. 1849, L.S.A. Lond. 1849, late of Mansfield, Vic.

NAVAL AND MILITARY INTELLIGENCE.

New South Wales.

Naval Forces.—Surgeon W. B. Violette has been promoted to the rank of Staff-Surgeon in the *Naval Artillery Volunteers*, the appointment to date from May 23, 1900. Surgeon G. L. O'Neill has been promoted to the rank of Staff-Surgeon in the *Naval Brigade*, *vice* Staff-Surgeon John Steel, who died on active service in China.

Military Forces.—The following medical officers have left with the Draft Contingents for South Africa:—Lieutenant-Colonel R. Vandeleur Kelly, Captain W. R. Cortis, Lieutenant H. K. Bean, Lieutenant J. K. Freyer, Civil Surgeon T. H. Barker, Civil Surgeon H. C. M. Delohery.

During the absence of Colonel Williams, P.M.O., Major Fiaschi will act as P.M.O. During the absence of Lieutenant-Colonel V. Kelly in South Africa, Major R. E. Roth will command the *N.S.W. Army Medical Corps* (partially-paid establishment).

New Zealand.

The following medical appointments to the *New Zealand Sixth Contingent* are announced:—Surgeon Eugene J. O'Neil (late House Surgeon Dunedin Hospital); Surgeon-Captain John S. Purdy (late partner of Dr. James R. Purdy, Lower Hutt); Surgeon-Major Sherman (late of Marten). Sailed from Wellington January 26th. This contingent touched at Sydney.

New Zealand Volunteer Medical Staff.—The following appointments are gazetted:—Arthur Edwin Ronald, William Reginald Stowe, William Bey and John Bell Thomson, to be Surgeon-Captains.

Tasmania.

Tasmanian Defence Force.—Dr. Charles Mattei has been granted a Commission as Surgeon-Lieutenant.

Victoria.

Appointments.—*Reserve of Officers, Medical Staff—Militia.*—Herbert Appleton Palmer, M.B., to be a Lieutenant on probation. *Medical Staff.—Victorian Railways Volunteer Regiment.*—Francis Edward Dunkley, L.R.C.P. *et* L.R.C.S., to be Lieutenant on probation.

CHANGE OF ADDRESS, Etc.

De Lautour, Dr. B. E., late of Tapanui, has commenced practice at Stuart-st., Dunedin, N.Z.

Edwards, Dr. C. A., who has been on active service in South Africa with the N.S.W. Army Medical Corps, has returned to Sydney.

Humphrey, Dr. E. S., has removed from Newcastle, W.A., to Surrey Hills, Vic.

Macdonald, Dr. G. B. D., has succeeded to Dr. A. Rhodes' practice at Branxholme, Vic.

Martin, Dr. T. **Morgan**, who has been on active service in South Africa for the past eighteen months, has returned to Sydney, and resumed practice at 50 College-st., Hyde Park.

Roth, Dr. R. E., who has served with the N.S.W. Army Medical Corps in South Africa since October, 1899, has returned to Sydney.

Smith, Dr. J. M., has left Bairnsdale, Vic., for Queensland.

Thorp, Dr. C. G., has removed to St. George's Terrace, Perth, W.A., and commenced practice there.

Williams, Colonel W. D. C., P.M.O., N.S.W. Forces, has left Sydney for a trip to England. He will be absent about four months.

MEDICAL APPOINTMENTS.

The following Medical Appointments are announced:

Affleck, Dr. Ada C., to be Junior Medical Officer, Coast Hospital, Little Bay, N.S.W.

Broad, Dr. William, to be Consulting Surgeon to the Narandera Hospital.

Cortis, Dr. J., to be Officer of Health for Mount Ida, W.A.

Davis, C. S., M.R.C.S., to be a Public Vaccinator at Waiapu, N.Z.

Finlay, W., M.D., to be a Public Vaccinator for Tungamah, Vic.

Forsyth, W. A., M.B., to be Public Vaccinator for Mansfield, Vic.

Fox, J. R., M.B., to be Officer of Health for Stawell Shire, Vic.

Fox, R. A., M.B., to be Senior Medical Officer, Coast Hospital, Little Bay, N.S.W.

Frost, Constance H., M.B., to be Resident Medical Officer, Adelaide Hospital.

Gmelin, O. F., M.D., to be a Public Vaccinator for Yarra Glen, Vic.

Hall, Dr. A. J., to be Senior House Surgeon, Dunedin Hospital, N.Z.

Hayman, F. D., M.R.C.S., to be Officer of Health for Ararat, Vic.

Howard, Jas., M.R.C.S., to be a Public Vaccinator at Malvern, N.Z.

Kinder, Jane, M.B., to be Resident Medical Officer, Adelaide Hospital.

Lotz, H. J., to be a Member of the Medical Board, W.A.

Macdonald, G. B. D., M.B., to be Officer of Health for Portland Shire, Vic.

Norris, W. P., M.D., D.P.H., to be Assistant Medical Officer of Health for Sydney.

Paget, Dr. Owen, to be Officer of Health for Fremantle, W.A.

Payne, Dr. J. W., to be a Public Vaccinator for Mersey, Tas.

Smith, G. T., M.R.C.S., to be a Public Vaccinator at Ohinemuri, N.Z.

Spring, W. A., M.B., to be a Public Vaccinator for Traralgon, Vic.

Wilson, Dr. J. S., to be Government Medical Officer and Vaccinator at Campbelltown, N.S.W.

Young, R. W., M.R.C.S., to be Medical Attendant on Aborigines at Ulladulla, N.S.W.

REVIEWS.

The Year-Book of the Nose, Throat and Ear. The Nose and Throat, edited by G. P. Head, M.D., Professor of Laryngology and Rhinology in the Post Graduate Medical School of Chicago. The Ear, edited by A. H. Andrews, M.D., Professor of Otology in the Post Graduate Medical School of Chicago; Oculist and Aurist to the German-American Hospital, Chicago; Oculist and Aurist to the Chicago, Rock Island and Pacific Railway. The Year-Book Publishers, 100 State-street, Chicago, 1901. Price, 8s. 6d., nett.

In publishing this book the editors have succeeded in making a fair presentation of the progress made during the past year in Nose, Throat and Ear work, and in doing so have availed themselves freely of clippings and extracts from the current literature dealing with these specialities. They explain that while some subjects have been given more space than their importance would seem to warrant, this is done because such subjects have occupied a prominent place in the literature of the year. As a collaboration, embodying a systematic synopsis of the literature and improvements having reference to the Nose, Throat and Ear, we commend this book to specialists and general practitioners.

Mental Affections: An Introduction to the Study of Insanity. By Jno. Macpherson, M.D., F.R.C.P.E. Macmillan & Co., London and New York. Price, 12s. nett.

This work consists of a series of lectures delivered during several sessions to the students attending classes on Mental Diseases in the Royal Colleges School of Medicine, Edinburgh. The lectures have been extended and re-arranged, and while the author does not claim that they are exhaustive in scope, or complete in detail, he hopes that his general views on the etiology of insanity, on the inter-relationship of the neuross, the psychoses, the diatheses, and on other cognate problems may be of suggestive value to some of those who have experienced the perplexity and obscurity of the subject.

This book is written in a very able and lucid manner, consists of three parts, divided into 19 chapters upon the following subjects:—(1) Morbid Heredity, (2) Evolution of Insanity, (3 and 4) Determining Causes of Insanity, (5) Psychological and Histological Aspects of the Nervous System, (6) Some Psychological Considerations, (7 and 8) Pathological Symptomatology, (9, 10 and 11) Idiopathic Mental Affections, (12, 13 and 14) Confusional Insanity—Toxic Insanity, (15 and 16) Insanity of the Degenerate, (17) Insanity Connected with the Neuroses, (18) Insanity caused by Brain Disease, (19) Medico-Legal Considerations. We strongly recommend this book to the notice of medical practitioners and students interested in the subject of Mental Diseases.

A Manual of Medicine. Edited by W. H. Allchin, M.D. Lond., F.R.C.P., F.R.S. Edin., Senior Physician and Lecturer on Clinical Medicine, Westminster Hospital; Examiner in Medicine University of London, &c., &c. Vol. II., General Diseases—continued. London: Macmillan and Co., Limited. New York: The Macmillan Company, 1900. Price, 7s. 6d. nett.

We have pleasure in welcoming the second volume of this important work. In it the subject of general diseases receives further treatment. To commence with, Shore and Cantlie give an interesting article on Parasites, and diseases caused by poisons are treated of by Poore and Allchin. The latter, who is Editor of the manual, contributes several masterly articles to the volume on Malnutrition, Autogenetic Poisons (Uræmia, &c.), Malignant Disease, Obesity, Phosphaturia and Oxaluria, Chronic Rheumatism.

The names of other contributors are well known to us. Arthur P. Luff writes on Gout; Lazarus Barlow gives a lucid account of Inflammation; and Bradford an excellent *resumé* of a subject of engrossing interest at the present time—the Physiology and Pathology of the Ductless Glands.

There are several beautiful plates illustrative of the article on Diseases of the Blood. The volume is light and of a convenient size, and the type clear.

Cancer of the Uterus: Its Pathology, Symptomatology, Diagnosis and Treatment; also the Pathology of Diseases of the Endometrium. By Thomas Stephen Cullen, M.B. (Toronto), Associate Professor of Gynæcology in the Johns-Hopkins University; with eleven lithographic plates and over 300 illustrations by Max Brödel and Hermann Becker. New York: D. Appleton and Co., 1900.

The chief aim of this work is stated to be the education of the "family physician" in the early diagnosis of carcinoma uteri, for its author recognises that an attitude of watchfulness on the general practitioner's part is of consummate importance in the early recognition and successful treatment of the disease.

The volume is a splendid contribution to medical science. It is none the less acceptable on account of the almost luxurious character of the publisher's handiwork, a feature deserving special notice. Though somewhat massive, it is a most beautiful production in all other respects. The general arrangement is methodical, the contents easy of reference, and elaborately indexed. The type is clear and easy, the copious illustrations are models of clearness, presenting all that is modern and good in pictorial description. It may be said that the late John Hopkins, in endowing the Hospital and University which perpetuate his name and munificence, has achieved an enduring memorial,—"*momumentum aere perennius.*" Many men have amassed wealth even as he did—it is "up to them," as the Americans say, to justify their worldly success in the manner of this worthy philanthropist.

The introductory chapter contains a historical sketch of the pathology of cancer. The importance of the subject can hardly be overrated. Welch, after a statistical consideration of 31,000 cases, concludes that one-third part of all cancers is accounted for by the uterus. Dr. Collins assents to the prevalent belief that the disease has greatly increased in frequency in the last fifty years.

The classification adopted is given as *Squamous-celled* carcinoma of the cervix, and (rare) of the corpus; and *Adeno-carcinoma* of the same portions. It is a little distracting to the "family physician" (himself not a histologist) to note that while Dr. Cullen finds some 70 per cent. of uterine cancers to be of the squamous variety, another high authority whose work on uterine tumours was noticed in our last issue, states that no less than 90 per cent. are of the glandular type. Such a discrepancy calls for attention.

The varieties of carcinoma are dealt with in detail, their gross and minute anatomy, as well as the symptomatology and diagnosis, receiving a lengthened and careful exposition. The radical methods of Hysterectomy practised by Clark and Werder are fully described, and very finely illustrated. The tenacity with which the modern surgeon keeps on the track of his quarry calls for admiration. His courage may flag for a moment in view of the poverty of ultimate result; but there is no place for inertia or half measures in the face of a stubborn statement like the following. It is a summary of six years' work ('93-'99) at the Hopkins Hospital:—

Cases in which Hysterectomy was performed or attempted	61
Patients coming too late for operation ...	62
	123

Number of operative cases now living, 13, *or* 21 per cent.

Of the thirteen survivors, two have lived six years, and are by Dr. Collins accounted cures; the remainder are on probation (January, 1900).

There is small comfort in this reading, and we turn with a sigh to the chapter on the Etiology of Carcinoma, where, however, there is but little to cheer. The discussion of Heredity, Trauma, Pregnancy, as causes, ends in uncertainty; the explanations of Cohnheim and Ribbert find no support in the author's investigations; the weight of evidence contradicts the parasitic theory. In short, while more is being learned from year to year about the histological structure of cancer, its etiology is still shrouded in mystery.

These facts make some inclined to despair. Not so our author; he believes that early diagnosis, with the practice of radical operation will greatly better the attainment of to-day. We agree with him, and are hopeful of even larger results in the not distant future. The men who labour like the collaborators in the present volume are on the right track, obscure though it be, and leading through doleful shades,—

Quale per incertam lunam sub luce maligna
Est iter in sylvis,

and rising from a perusal of works like those of Cullen and Williams, not to mention the men of other nationalities, we feel warranted in hoping that this dread disease, *opprobrium medicorum* and terror of humanity, will soon yield up its secret.

CASE TAKING BOOK. By the late L. E. F. Neill, B.A., Ch.M. Syd. Angus and Robertson. Price, 6s.

This is a quarto book containing 100 leaves, each leaf of two pages being printed in a systematic manner with blank spaces, so as to enable the practitioner to make a complete record of his examination and diagnosis of each patient whom he examines. On the lower half of each first page are two diagrammatic outlines of the human trunk—front and back. These are printed pale pink, and the various internal organs are graphically depicted. The examiner is therefore enabled, with pencil or pen, to mark out percussion notes, frictions or cardiac sounds in a most easy and legible manner. To the busy general practitioner, the consultant or specialist the use of this book will ensure a thorough, exhaustive and rapid medium for the systematic examination and record of each patient.

OUR ARMY IN SOUTH AFRICA. By R. Scot Skirving, late Consulting Surgeon to the Australian Contingents. Angus and Robertson, Sydney and Melbourne; The Australian Book Company, London 1901.

We welcome this *brochure* with pleasure, on the assumption of its being a candid and unbiassed criticism by an outsider in military tactics, who views the operations of warfare from a practical and commonsense point of view, rather than from a pinnacle of technical bias, warped by the roseate coloured glasses of self-sufficiency, which usually gives obliquity to the effusions of some so-called military experts.

Notwithstanding a very brief and modest preface, Dr. Scot Skirving deals with the subject matter of his text in a very trenchant and able manner. We commend this book to those subjects in the various States who have contributed fathers, husbands and sons, whose blood has been spilt in this war, and the bodies of many of whom are now lifeless beneath the veldt; also to those who, in oppressive taxation, will have to pay the war bill. It will be an object lesson to such contributors, and will afford a curious psychological problem for solution, whether all this sacrifice of life, health and money will be amply repaid by the lavish distribution of titles amongst those Ministers in the various colonies who, seated in cosy armchairs, sanctioned this sacrifice on the altar of Patriotism to the Shrine of Loyalty.

The author treats his subject under three headings —1. The Campaign and the Army; 2. The Medical Arrangements; 3. The Royal Army Medical Corps.

Under the first heading the writer lays great stress upon the action of the British Government, which, in spite of frequent warnings from competent persons, underrated the strength of the Boers. He states that blunders after blunders were perpetrated, until Lord Roberts arrived, when, judging from results, tactics were changed, and the great moves of the war game were planned on better lines. Notwithstanding Lord Roberts' great experience, the game of war appeared a slow one, and to the writer's lay mind, did not seem to be conducted on business lines.

"To me, as a civilian, it seemed, from the haphazard, devil-may-care, go-as-you-please manner in which troops marched, dealt with the inhabitants, occupied and left towns, camped, scouted, received obsolete arms, and accepted the submission of lying burghers, that nothing was more probable than delay and disaster." The conclusion the author reached was, "That if one of us, pursuing a civil calling, were to conduct our profession in business on the lines adopted by a too large percentage of British officers, he would neither be a worldly success nor advance the knowledge of his art or trade." Dr. Scot Skirving designates the humane, pay-as-you-go method of warfare adopted by tho British, as being misinterpreted as weakness by the Boers, and contends that a less humane and "cruel to be kind" system would have hastened a satisfactory termination at a less cost of British life.

The writer deals gently with Tommy Atkins, whom he looks upon as a grown-up child, and he gives him the credit that not one instance of incivility to, or molestation of, a woman was reported against Tommy during the whole campaign. He commends the non-commissioned officers, whom he calls the backbone of the army, and expresses a hope that there will be more frequent promotions to commissions from that class of men.

He damns with faint praise a certain class of commissioned officers, especially those of the aristocracy and monied class, who adopt the army as a pleasant and gentlemanly way of spending the years between twenty and forty, and he considers that many of them are not masters of their trade, and he compares such men and their method of being trained in very unfavourable terms when contrasted with naval officers.

This chapter concludes with a eulogistic peroration upon the intelligence and fighting qualities of "the citizen soldier of the colonies," his adaptability to circumstances, and general capacity.

With reference to the "medical arrangements of the campaign," the writer blames those who planned the campaign rather than the medical heads of departments. The same complaisancy that the war would terminate in a speedy victory prompted the Government to arrange for a smaller and more successful army, and it was only when serious British reverses were followed by a vast outbreak of disease, that the fatal error became apparent.

The writer, however, cautions his reader not to trust Mr. Burdett-Coutts' representations, and points out the impossibility of having near a battle-field all the luxuries of an up-to-date hospital, and gives several examples to illustrate his contention. He then relates in a very succinct and interesting manner how difficulties were overcome in adapting buildings and tents for hospital purposes, of obstacles encountered and overcome. He gives illustrations of the origin and spread of pestilence and disease, and pays tribute to the utility of the endless stores sent by the people of New South Wales, and lavishes generous praise to the successful services of the nursing sisters of that colony.

Regarding the Royal Army Medical Corps, while giving much credit to members of that body, he admits that any outside observer can see plenty of faults, both in the professional training of the men and in the routine of the department. He considers that the service is not composed of men of the highest type of professional intellect or education. Notwithstanding the great opportunities of the training at Netley, when they leave that training school and have either passed into active service or taken medical or surgical charge of military hospitals, their mode of life seems to be fatal for further professional study or self-improvement.

Their opportunities for study seem to be limited to venereal diseases, dysentry, enteric, and that curious A.M.D. disease N.Y.D. (not yet diagnosed). They have no opportunities for practising surgery, and in consequence are incapable of obtaining that priceless confidence which comes from constantly performing surgical operations.

With all these drawbacks, the writer gives credit to the average army doctor for personal courage, conscientious performance of his duties in a kindly and sympathetic manner. He makes some very thoughtful suggestions regarding the correction of certain defects, and concludes by indicating that instead of sending out five eminent consulting surgeons at a cost each of £5,000 a year, far better results would have accrued had the services of thirty-five good, all round hospital operators been utilised at the rate of £1,000 a year each, and a fair selection could have been made from hundreds of applicants.

The author concludes as follows :—"It is mainly by one's mistakes that one learns. If this be so, the South African campaign must have been a marvellous school for all ranks and all departments of the army. Let us hope that in the service, and out of it, the blood, tears, and the treasure which we have so freely spent, have not been spent in vain."

Cure Pratique de la Tuberculose. By Dr. P. Pujade, of Amélie-les Bains. (Practical treatment of Tuberculosis) with preface by Dr. Boirao ; Sm. 8vo., 369 pp., Carré and Naud, Paris.

The author writes from a large experience, the results of which are full of interest and display some originality. The first half of the work is descriptive, the second treats of the rational conditions, the atmosphere, clothing, repose, alimentation, gavage and medicaments. Of the latter, chapters are devoted to the methods of administering arsenic, cod liver oil, phosphates, tannin, creosote, iodoform, etc., etc., and their compounds, with rare discrimination of adaptation to conditions, which are fully detailed.

A Manual of Surgery for Students and Practitioners. By Wm. Rose, M.B., B.S. Lond., F.R.C.S., Professor of Clinical Surgery in King's College, London, and Senior Surgeon to King's College Hospital, etc., and Albert Carless, M.S. Lond., F.R.C.S., Surgeon to King's College Hospital, and teacher of Operative Surgery in King's College, London, etc. Third edition. London : Baillière, Tindall and Cox. Sydney : L. Bruck. 1900. Price, 24s.

The fact that a third edition of this book had to be published within twelve months of the issue of the second edition is a criterion as to its intrinsic worth. The authors state that in preparing this Manual of Surgery for the Profession they have endeavoured to meet what they think is at the present time a genuine need. The many large and valuable text books and works of reference already in existence are almost more than the ordinary student can master during the time at his disposal. We congratulate the authors upon the excellent manner in which they have succeeded in presenting the facts of surgical science in a succinct form. The book is also adequate for the requirements of the general practitioner, as much care has been taken to discuss in detail those conditions which are most likely to be met with in ordinary practice. A special feature of the work lies in the numerous excellent illustrations, consisting of photogravures, woodcuts and Röntgen Ray reproductions. The work is clearly printed and substantially bound in half-morocco. We can confidently recommend it as a work of ready reference for the busy practitioner and industrious student.

Medical Electricity. A Practical Handbook for Students and Practitioners. By H. Lewis Jones, M.A., M.D., Fellow of the Royal College of Physicians ; Medical Officer in Charge of the Electrical Department in St. Bartholomew's Hospital ; with illustrations. London : H. K. Lewis. 1900. Price, 10s. 6d.

This is an admirable and up-to-date work on medical electricity, being the third edition of "Medical Electricity," by W. E. Stephenson, M.D, and H. Lewis Jones, M.D., containing numerous illustrations.

The contents consist of the following :—An historical account of the origin of electricity, and the early medical writers upon that subject, with a clear exposition of the status of electricity in medicine, as well as a demonstration of some fundamental experiments and definitions. The chapter on batteries is very exhaustive and instructive. The subjects of dynamo electricity, high potential and statical electricity, are very clearly explained. The application of electricity in physiology, diagnosis and general therapeutics are fully discussed, while the applications of electricity in baths, diseases of the brain, general neuroses, spinal diseases and other conditions are carefully considered. Subjects of electrolysis, cautery, lighting instruments, the electro magnet and Röntgen rays are elaborately explained. The contents of this book show that all of the subjects therein treated have been carefully studied and ably handled.

Anatomie Gynæcologique (Gynæcological Anatomy). By Prof. Paul Petit. Large 8vo, 207 pp. Carré et Naud, Paris, 1901.

Dr. Petit has rendered a great service to gynæcology. Should any surgeon, relying on asepsis, be called upon suddenly to undertake an operation with imperfect recollection of anatomical relations this work will prove a godsend.

Dr. Petit has carefully studied pelvic anatomy upon the cadaver, for the purpose of noting the difficulties which surround dissection of the viscera, the vascular tracts, the planes of cleavage, etc. He gives thirty-two fine original steel engravings of preparations and frozen sections, with minute explanations in illustration.

Chapter I.—Anterior perineal or vulvar region. II. Median perineal region. III. Posterior perineal region or para-anal fossa. IV. Elements of gynæcological anatomy. V. Analytical study of the pelvic region. VI. Synthetical study of the pelvic region. VII. Clinical and operative considerations. VIII. Antero-lateral abdominal wall. IX. Analytical Study. X. Synthetical study. XI. Iliac fossa.

TRAITE MEDICO-CHIRURGICAL DES MALADIES DU PHARYNX, NASO - PHARYNX, ORO - PHARYNX, LARYNGO-PHARYNX (Medico-surgical Treatise on Diseases of the Pharynx). By Prof. E. Escat. Large 8vo., 568 pp. Carré et Naud, Paris, 1901.

This appears to be complete, up-to-date, and possessed of the recognised French attributes, terseness and lucidity, the former not being allowed to interfere with attention to detail or minutiæ of technique. Of adenotomy, for instance, every step of the operation from the posture most suited to the patient according to his age, up to the readiest method of removing clots is succinctly given, and the variants of rival specialists are judiciously discussed. For a grasp of the adenotome or post-nasal curette the author recommends that of a writing-pen rather than that of a cutting-knife, because dexterity more than force is needed. Dexterity in its use is only possible through free movement of wrist and finger-joints, the sense of touch extending even to the top of the instrument. The contents list of the book comprises Anatomy and clinical physiology, Exploration, Acute inflammations, Chronic conditions, Specific affections, Tumours, Stenoses, Varices, Neuropathics, Hæmorrhage and hæmostasis, Foreign bodies, Developmental defects; with numerous most useful illustrations.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

THE following persons have been duly registered as legally qualified medical practitioners in their respective states:—

NEW SOUTH WALES.

Bowker, Richard Ryther Popplewell Steer, Lic. Soc. Apoth. Lond. 1900.

Bennett, Agnes Elizabeth Lloyd, M.B., Mast. Surg. 1899, Univ. Edin.

Frazer, Ewan Richards, Mem. R. Coll. Surg. Eng. 1898, Lic. R. Coll. Phys. Lond. 898, M.B., Bac. Surg. 1898 Univ. Oxfd.

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QUEENSLAND.

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Rutledge, Charles James, L.R.C.S.T. 1886.

TASMANIA.

Atkins, Thomas Edward, L.A.H. Dub. 1897.

O'Leary, Arthur Pryce Evelyn, M.R.C.S. Eng., L.R.C.P. Lond. 1899.

VICTORIA.

Bonin, Francis Josiah, M.B. Melb. 1900.

Humphry, Edward Scott, M.R.C.S. Eng. 1893, L.R.C.P. Lond. 1893.

Leitch, Oliver, M.B. Melb. 1900.

Lewis, James Brook, M.B. Melb. 1900.

Stang, Thomas, L.R.C.P. *et* R.C.S. Edin. *et* L.F.P.S. Glas. 1900.

Thrower, Robert William, L.R.C.P. *et* R.C.S. Edin. *et* L.F.P.S. Glas. 1892.

Name restored to Register:

Browne, Arthur Edward Newbury, L. *et* L. Mid. R.C.P. *et* R.C.S. Edin. 1884.

Additional Qualification Registered:

Lewers, Alexander, D.P.H., R.C.P.S. Eng. 1899.

WESTERN AUSTRALIA.

Thorp, Chas. Gabourel, M.B., C.M. Edin. 1884.

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Watson, Henry Sinclair.

BRITISH MEDICAL ASSOCIATION.

NEW SOUTH WALES BRANCH.

A General Meeting of this Branch will be held at the Royal Society's House, Elizabeth Street, Sydney, on Friday, 26th April, at 8.15 p.m.

Business:—General.

G. T. HANKINS, Hon. Secretary.

SURGICAL APPLIANCE AID SOCIETY.

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President: James Graham, Esq., M.D., Hyde Park. Sydney.

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AUSTRALASIAN MEDICAL GAZETTE.

ORIGINAL ARTICLES.

NOTES ON A CASE OF HOUR-GLASS CONTRACTION OF THE STOMACH—GASTRO-ENTEROSTOMY—DEATH.

By R. Humphrey Marten, M.B., B.C. Cantab., M.R.C.S., L.R.C.P., Lond., Adelaide.

◆

According to Dr. Sidney Martin, in his work, pubished in 1895, on Diseases of the Stomach, hour-glass contraction of that organ is usually only discovered at the *post-mortem* examination, and this is certainly true in my case, as you will learn as I proceed to recount it. I showed you the specimen at the last meeting, when you remember there was a large dilated left half of the stomach, with a constriction and a narrow, contracted, pyloric end, which had been anastomosed to the first portion of the jejunum by means of a Murphy's button.

The history is as follows:—For the last ten years Mrs. I. was constantly under my care for dyspeptic symptoms. She had had various attacks of pain attended by vomiting, and I always suspected a gastric ulcer, but there was never any hæmatemesis. About five years ago she had an attack of peritonitis, which was entirely confined to the upper abdomen above the umbilicus, but she rapidly recovered from this. During these ten years, whenever she became pregnant, she lost all her stomach symptoms, and became fat and strong, but her old troubles returned immediately she was delivered.

For two years before her death her symptoms increased in severity, being accompanied by loss of flesh, and she gradually developed an epigastric swelling which had an ovoid shape, with the long diameter placed transversely, situated immediately above the umbilicus, variable in size from a pigeon's egg to a good-sized hen's egg, and on the left of this swelling was an occasional fulness, which I took to be a dilated stomach. The rest of the abdomen had latterly become a mere concavity. She was only 29, so I concluded that this thickening was probably a chronic gastric ulcer, and suggested that she should allow me to perform an exploratory cœliotomy to settle the diagnosis. To this she readily consented, as her life had become a bed-ridden misery, and owing to her emaciated condition, to lie in bed itself was most distressing.

Her heart, lungs, nervous system and urine were normal, but she was extremely weak. She was admitted into the private hospital on December 5th, 1900, and as she had for weeks immediately rejected everything she took by mouth, her nourishment was entirely given by means of nutrient enemata. If she took even a glass of water, she always insisted on having a utensil by her side, for she would vomit it up almost at once.

On December 9th, the patient being under the influence of gas and ether, assisted by Dr. Poulton, I made a three-inch incision between the ensiform cartilage and the umbilicus, and immediately came upon a large, firm tumour in the region of the pylorus, too fixed to remove. This we looked upon as being probably malignant. Dr. Poulton suggested at the time that we should perform an anastomosis, but I thought that as the patient would only have a few days to live, the best thing to do was to immediately close the wound, which we did.

Of course, the patient's condition was in no ways relieved, and on explaining to her the reason, she asked to have an anastomosis performed to ease her end.

On the morning of December 14th, under ether, the incision was re-opened, and the first portion of the jejunum was joined to the most dilated portion of the stomach that we could find, but we noticed at the time how extremely thickened and vascular the walls were, and no ulceration of the interior could be felt. As the patient's condition was critical, and would not have stood a prolonged operation, we used a medium-sized Murphy's button, and the patient was able to leave the table in twenty minutes from the commencement of the operation. We were struck at the time by the small size of what we took to be the stomach, and we never saw, in fact, never suspected, an hour-glass contraction with a dilated portion still further to the left.

The patient stood the operation very well, and suffered very little from shock, but the symptoms remained exactly as they were before the junction, everything that was taken by the mouth being immediately rejected, and although no symptoms of peritonitis developed, the patient died of sheer exhaustion on December 23rd, 1900.

Dr. Cavenagh-Mainwaring kindly made a partial *post-mortem*, and the following are his notes:—

The body was that of a well-grown, but greatly emaciated female. The abdominal contents only were examined. In the middle line, over the epigastric region, there was a recent wound three inches in length—on opening the abdomen a superficial inspection showed nothing abnormal, except a recent adhesion of the omentum to the abdominal wound, with no other signs of peritoneal inflammation; on further examination the stomach was seen to be united about four inches above the pylorus to the upper part of the jejunum. At first sight the stomach seemed normal, except for the thickening of its walls, but on further examination, the organ was seen to be divided into two parts by a constriction from four to five inches above the pylorus. The upper part was dilated with very thin walls. and entirely concealed behind the ribs of the left side. On opening this, two pints of dark, grumous fluid escaped, and the mucous membrane was seen to be atrophied, and in some parts entirely absent, but in no place was there evidence of ulceration, past or present. The constriction just admitted the forefinger, and was quite rigid, and the walls of the undilated portion were felt to be somewhat thickened with the mucous membrane, thick and velvety, but here, also, there were no signs of ulceration demonstrable.

The causation of the constriction was obscured, but the appearance suggested that at one time there had been a band of some kind pressing on the organ at that spot, causing the tissues to become condensed, and that subsequently the band had become absorbed, but the condensation and the scarring remained. It may be wondered how it was that we had failed during life to discover this dilated portion, but our physical examinations had been made whilst the patient was taking no food by the mouth, being fed entirely by nutrient enemata; and an almost identical case is reported by Dr. Sidney Martin and Mr. Pollard in the *British Medical Journal* of December 8th, 1900, where, after most careful clinical and chemical examinations, the abdomen was opened and a gastro-enterostomy performed between an hour-glass contracted stomach and the jejunum, with precisely similar results, *i.e.*, no relief to the symptoms, as no hour-glass contraction had been suspected, and was not detected till the *post-mortem* showed that the wrong portion of the stomach had been joined to the jejunum.

It is difficult to explain how the right half of the hour-glass contracted stomach should have become so contracted and hypertrophied as to resemble a tumour, especially as no impediment was found *post-mortem* to the passage of food in its normal direction, but this might be accounted for by a kink of some kind, which was relieved by the operative procedure.

It might also explain how, when she became pregnant, and the uterus enlarging, displaced the abdominal organs, the contents of the stomach were allowed to proceed in the right direction, otherwise I fail to see how this condition should each time absolutely ameliorate her symptoms. One other point is that the Murphy's button stood the excessive strain that was put upon it from the constant vomiting that occurred after the operation had failed to give relief to the symptoms

I see Dr. Sidney Martin, in the work already referred to, says that hour-glass contractions of the stomach may be either congenital or due to cicatrices from ulcers or bands, and I think it is quite likely that this may be a case of congenital malformation. The condition we found at the exploration was probably produced by the pyloric end of the stomach being strongly contracted, but unless the condition has been seen it is difficult for anyone to realise how like a malignant tumour it may be.

Since writing this paper, there is an almost identical case reported in the *British Medical Journal* of March 23rd, 1901, by Mr. Childe, of Southsea.

(For discussion on this paper see p. 191.)

BRITISH MEDICAL ASSOCIATION.

NEW SOUTH WALES BRANCH.

A General Meeting of this Branch will be held at the Royal Society's House, Elizabeth Street, Sydney, on Friday, 24th May, at 8.15 p.m.

Business :—General.

G. T. HANKINS, Hon. Secretary.

SURGICAL APPLIANCE AID SOCIETY.

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A CASE OF CEREBELLAR DEFECT.

By George E. Rennie, M.D., M.R.C.P. Lond., Assistant Physician and Medical Tutor, Prince Alfred Hospital, Sydney.

W.N.H , a boy aged 9 years, was born at Mitchell Downs in Queensland, and lived there all his life up till about four months ago when his mother brought him to Sydney for advice.

Family History.—His father is said to have been healthy up till his death three years ago from typhoid fever and pneumonia. His mother is healthy ; all the other children in the family are healthy. One paternal uncle died from what appears to have been acute ascending paralysis, but with this exception there is no history of any nervous disease, syphilis or tuberculosis in the family.

Personal History.—The patient is the fifth child in a family of thirteen While his mother was pregnant with him she was much engaged in nursing a relative who was suffering from cancer in the face, and she was very nervous and frightened, thinking all the time that the child would be disfigured. His birth was natural without instruments. He was breast fed for the usual nine or ten months. His grandmother considers that he was defective in some way from the time of birth, but his mother thinks that he was all right until the age of six months, when he is said to have had a fall, and that he was not able to sit up properly from that time. At nine months of age he had a convulsion, and nine months later he had another, during which his "eyes turned." He made no attempt to sit up till he was three years old, and then had to be propped up with a support. He used to drag himself along on the ground like a snake "on the flat of his stomach, then he got on his knees, and when he got better sense and found his knees so sore from crawling he got on to his feet and hands and lately he tries his best to walk upright but his nerves seem to be affected as he lets go all he holds and falls to the floor or against anything he is near. He was six years old when he first tried to speak, and he has had great struggling since to say what he can say now, but he is talking the best very lately." With the exception of the convulsions he has had no serious illnesses, though from the age of two years until five years his mother had great difficulty with his food ; he seems to have refused his food and never ate like another child.

Present Condition.—He is now a healthy looking boy, rather under sized for his age. He complains of no pain or headache ; sleeps well. He is intelligent to a certain extent, he understands everything that is said to him, his memory is good and he can learn easily and remember short verses of poetry. He can remember all about his school in Queensland ; he can recognise different children he knows by their voices. He is somewhat irritable, and rather babyish in his play. He does not know all his letters, and of course cannot read. His articulation is defective ; he cannot pronounce certain of the consonants properly, *e.g.*, he says "v" for "c," "et" for "s," and "ed" for "z," etc. He also clips his words in half, as for instance, he says "doct" for "doctor," and in repeating his own name, he says "Norm. Holl." instead of "Norman Holland." When, however, he is corrected and told to repeat the words correctly after one, he does so without difficulty. There is no aphasia. He does not suffer from any fits at present.

The special senses are normal. The pupils are equal and react to light and convergence. Dr. Pockley kindly examined his eyes for me, and reports,—"There is weakness of both external recti, but no other ocular muscular paresis. The eye-grounds are normal." The other cranial nerves are normal.

There is no abnormality of the cranium or spine, no abnormal flattening or bulging of the skull, and no tenderness on percussion of either cranium or spine. His palate is rather high arched, but there is no other abnormality about the mouth or tongue or throat ; the teeth are normal.

There is no loss of power in any of the muscles of the arms or legs, but there is some weakness in the muscles of the back, as he always wants to support himself with his arms when he is sitting at the table.

No loss of sensation can be detected anywhere ; and his muscular sense is apparently intact. He can recognise fairly well the position of his limbs and can touch the tip of the nose with the tip of the finger of either hand with eyes closed fairly accurately. There is no inco-ordination in the performance of voluntary movements with the hands. His gait is, as you have seen, very unsteady and ataxic. He walks with a wide base, and cannot walk more than two or three steps without some support ; there does not appear to be any tendency to fall to one side or the other. There are no forced attitudes and movements. There is no Rombergism. The reflexes are normal. Knee jerks present and equal on both sides and not exaggerated. No ankle clonus ; plantar reflex shows flexor response on both sides. The sphincters are intact. All the other organs of the body are healthy.

Diagnosis.—In arriving at a diagnosis in this case, we must first discuss the pathology and the significance of the prominent symptoms. First, with regard to the speech defect. This is obviously a purely articulatory defect and not an aphasia; it is a defect in the pronunciation of some consonants, and a difficulty in the complete articulation of words. We must remember, however, that the patient did not learn to speak at all until he was six years old, and a part of the difficulty in the pronunciation of words is due probably to a want of education. But in addition to this, there is a defect in the co-ordination of the muscular movements concerned in the production of articulate speech. This is what occurs in cases of disease of the nuclei of the cranial nerves in the pons, and in disease of the cerebellum. Secondly, with regard to his gait. You will have observed that the patient walks with a wide base, but the legs are not thrown about in a wild, ataxic manner such as is commonly seen in cases of tabes dorsalis, and similar conditions in which there is a loss of knowledge of the position of the limb and corresponding difficulty in exerting the appropriate degree of muscular effort to walk steadily. But there is obviously some weakness in the back muscles, thus rendering it difficult for him to maintain the erect posture; and further, though there is no loss of muscular power in the legs, and no loss of sense of position, there is a loss of the control of the muscular movements. Such loss I take it is dependent upon a defect in the central mechanism of co-ordination of movements. The absence of anæsthesia, and the normal condition of the knee jerks excludes the possibility of the ataxy being due to any degeneration, either in the peripheral nerves or in the posterior columns of the spinal cord Further, the fact that he can stand as steady with his eyes shut as with them open, shows that the ataxy does not depend upon the cutting off of peripheral impressions, but must arise from a central lesion.

The paralysis of the external recti muscles of the eyeballs is of no localising value. This frequently occurs in cases of convulsions in children, though why it should occur is not quite clear. Suffice it to say that it does occur without being of any serious import.

Two diseases suggest themselves in connection with this case, viz., Friedreich's Hereditary Ataxy, and Marie's Hereditary Cerebellar Ataxy. The first of these is excluded by the absence of tremor, nystagmus, talipes, the normal condition of the deep reflexes, and the absence of any other similar case in the family. Marie's disease is distinctly hereditary, occurring in the families of successive generations. It is manifested much later in life than Freidreich's disease, generally not before twenty years of age. There are also present usually exaggeration of the knee jerks with ankle clonus, muscular paresis with rigidity, some sensory changes; also nystagmus and changes in the eye grounds. The symptoms are slowly progressive to a fatal termination.

The improvement in the power of standing and walking, as well as in speaking, which has occurred in this boy is quite consistent with the existence of a congenital cerebellar defect. Cases have occurred in which a large part, and even almost the whole of the cerebellum has been absent, and yet very little disturbance of gait has been observed clinically. It is also well known that quite unexpectedly cysts and tumours of the cerebellum have been discovered *post-mortem* in cases which have presented none of the usual symptoms of cerebellar disease. It would seem that some compensation for the loss of function of the cerebellum can be effected in certain cases. In this patient there are no symptoms of a progressive irritative lesion present, such as the usual headache, vomiting and optic neuritis of cerebral tumour; and no forced movements and attitudes which are suggestive of irritative cerebellar disease.

As to the pathological condition here present, I am disposed to think that there has been a simple failure in development of the cerebellum, just as in other cases in other parts of the brain we find the convolutions in a rudimentary condition, such as would be met with about the fourth or fifth month of embryonic life. In favour of this view, too, we have the fact already mentioned, that the patient's mother during her pregnancy with him was suffering constantly from physical and mental strain and anxiety, an etiological factor which is not unfrequently met with in cases of congenital cerebral defect.

(For discussion on this paper see p. 192.)

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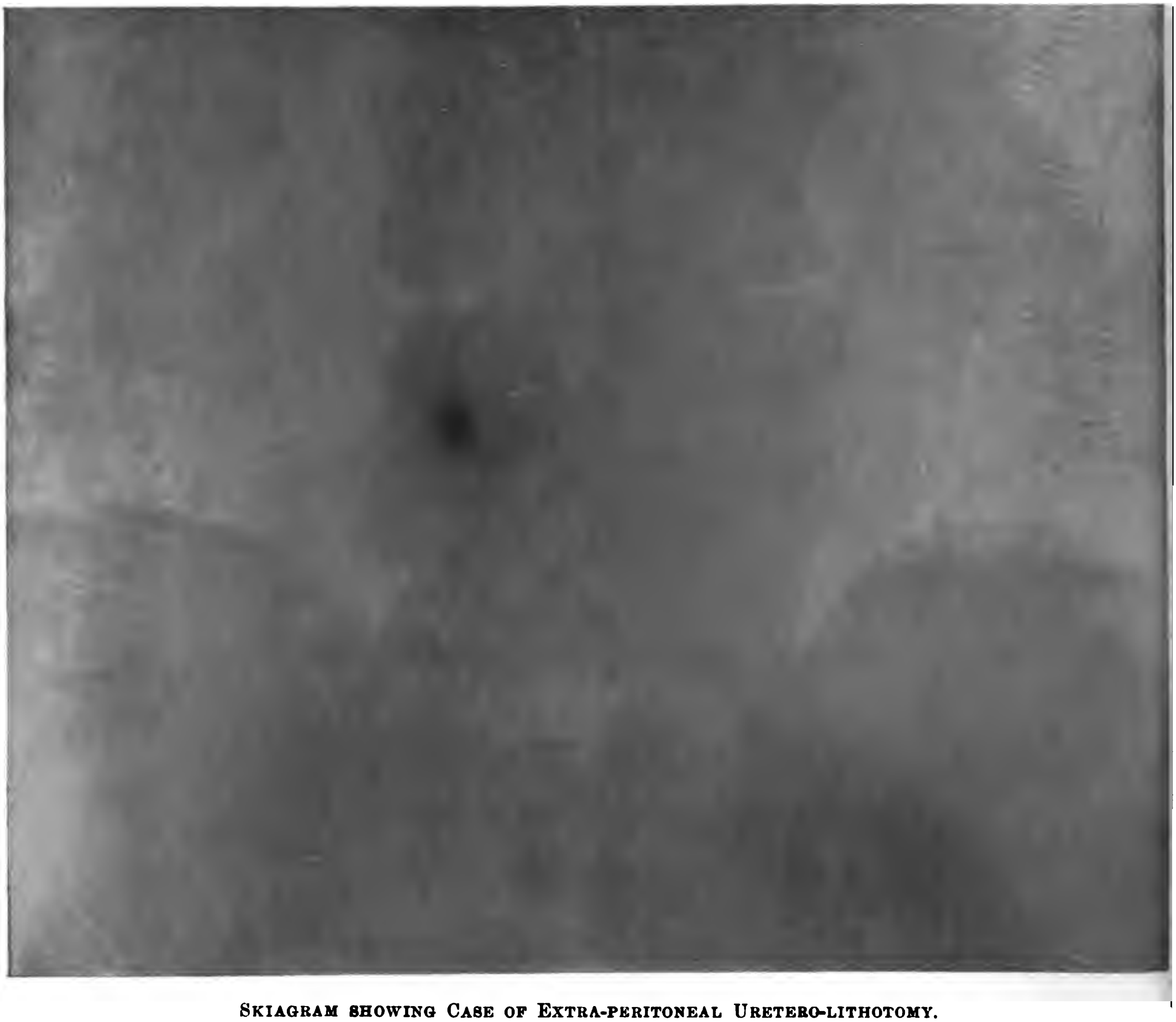


SKIAGRAM SHOWING CASE OF EXTRA-PERITONEAL URETERO-LITHOTOMY.

(TO ILLUSTRATE DR. MAITLAND'S PAPER.)

REPORT OF A CASE OF EXTRA-PERITONEAL URETERO-LITHOTOMY.

BY H. L. MAITLAND, M.B., CH.M., ASSISTANT HON. SURGEON SYDNEY HOSPITAL.

◆

THOMAS S., age 72, admitted into the Sydney Hospital on January 17th this year. He complained of occasional sharp attacks of pain shooting down from the left loin to the groin, sometimes followed by the passage of bright red blood in his urine. Patient stated that the first attack came on about sixteen months previously, the pain was very severe, localised to the left loin, lasted about twenty-four hours, and was accompanied by vomiting. The next day he noticed the blood in his urine. He has had two such attacks since, the last one being two months ago.

Present Condition.—There is some pain on deep pressure over left loin, no tenderness along the ureter, urine pale yellow in colour, acid in reaction, specific gravity 1015, and contained about one-tenth by bulk of albumen. Microscopically, some phosphatic crystals, no oxalate of lime or uric acid crystals, a few pus cells and some red blood corpuscles. The following note is by Dr. Harris:—

"A skiagram of the trunk shows a foreign body to be present just to the outer side of the centre of the body of the third lumbar vertebræ, the foreign body is about the size of a small marble. The situation is nearer the middle line than normal for the ureter at this level. The result of the skiagram points to the conclusion that a small calculus is present in the left ureter in the position mentioned and that the composition is oxalate of lime."

On the 21st of January, under chloroform, "Morris's" long oblique incision, extending from just below the last rib to situation of internal abdominal ring, was made. The incision was continued down to the peritoneum, which was stripped aside, the kidney sought and found higher than normal, and fixed. It was isolated and the ureter traced down and the calculus found in the situation shown in the skiagram, lying in a well-marked dilatation of the ureter. As the stone would not retrace its steps, a half-inch incision was made along the ureter over situation of stone, and the stone removed through the incision. The upper end of the ureter and pelvis of the kidney were catheterised, nothing was found.

On attempting to explore the lower end of the ureter some cicatricial stenosis was found just below the site of the stone, the incision in the ureter was continued down through the constriction for about half an inch, this part of the incision was then closed by three longitudinal Lembert sutures, as in the Heineke-Mikulicz's operation for pyloric stricture, fine kangaroo tendon being used, the upper end of the incision being stitched transversely with No. 3 catgut. The abdominal wound was then closed, free drainage being provided by sterilized gauze. The wound healed in about five weeks.

Six days after the operation the patient developed an attack of cystitis and prostatitis with retention. Owing to the intense pain, hæmorrhage and difficulty in passing an instrument, I introduced a small canula, with rubber drain attached, into the bladder suprapubically. This was allowed to remain in for four days, and the bladder was drained and irrigated through it. At the end of that time a soft Jacques was passed, and bladder irrigated daily for three weeks, when all bladder symptoms dissappeared.

The patient was discharged from the hospital on the 13th of March, perfectly well.

Remarks—A potent factor in the recovery of this patient was the comparatively healthy state of his kidneys, there being only a slight condition of hydronephrosis on the left side. One would have expected a more pronounced hydronephrosis considering the condition of his ureter and the presence of an impacted stone. An analysis of his urine five weeks after operation revealed only a trace of albumen.

Compared with the transperitoneal operation of ureterolithotomy as is practised by some American surgeons (see *Annals of Surgery*, December, 1900), the extraperitoneal route has everything to commend it. There is no danger of soiling the peritoneal cavity, there is no handling of the intestines, consequently there is very little shock. The long oblique incision is the one associated with Morris's name, and he uses it in all cases of nephro-lithotomy in preference to the short lumbar one. The advantages of this incision are obvious:—

(*a*) The ureter is more easily explored and catheterised from end to end, as it ought to be in every case of nephro-lithotomy.

(*b*) Free access can be gained to the infundibulum, and calculi, when present there, as they are most frequently, can be removed without incising the kidney substance.

(*c*) And if it be necessary to incise the kidney, the sometimes copious hæmorrhage can be controlled by pressure with the fingers on the renal vessels.

Suture Material.—I used silk in my first case of ureterolithotomy, and I have been accustomed to use silk in suturing the pelvis of the kidney, and in suturing the kidney in doing a nephropexy, but I had four cases return last year with sinuses in the loin due to silk sutures. In two cases they had lain dormant for nearly twelve months. I think the best material for sutures is fine kangaroo tendon, where the sutures are intended to hold for any length of time, and catgut where such a lasting effect is not required.

In conclusion, I desire to thank Dr. Thring for lending me his Halstead hammers, which I found of great use in suturing the ureter, and Dr. Hart, the house-surgeon, for the notes of the case.

(For discussion on this paper see p. 192.)

CASE OF FOREIGN BODY IN BRONCHUS

BY T. W. CORBIN, M R C.S. ENG., ADELAIDE.

◆

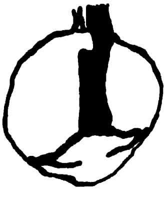
I FIRST saw Mrs R—— in connection with the history I am about to relate on October 14th, 1900. She appeared to be suffering from bronchial catarrh, which was at that time epidemic. There was slight dulness about the right scapular region, with a little pain and a good deal of fine rhonchus and a few moist sounds. Her principal reason for seeking advice was that on some nights she got very little rest in consequence of persistent coughing. There was nothing particular to notice about the sputum—it appeared to be the ordinary yellow mucus of the usual spring catarrh. I saw Mrs. R—— again on the 21st October, when there was practically no change in her condition.

On December 5th I was summoned in haste to see Mrs. R——, who was said to be dying. On arriving at her house I found that she had, during a fit of coughing, been almost suffocated. She had been for some seconds unable to draw her breath, and the lips and face became blue. The breathing was still hurried, but there was no spasm when I reached the bedside. All over the chest, front and back, both sides, there were such noisy râles that no definite idea of the condition of the lungs could be arrived at. She was spitting up a thin, frothy, yellowish mucus, smelling like pus from a pulmonary abscess, and I was told that she had been coughing up similar sputum for several days past.

I administered 2♏. doses of carbolic acid and 4♏. of tincture of iodine every four hours, and by the 8th December the breathing and cough had returned to their usual condition, as noticed in October, and there was no smell in the expectorated matter.

But the pain had left the right scapular region and precisely similar pain was affecting the left side with the addition of pain about the junction of the fifth rib with the sternum.

All the rhonchus and the moist sounds had disappeared from the right lung, and were present in the left lung, and there was dulness in the left scapular region, while at the apex of the left lung, for two or three fingers' breadth below the clavicle, although there was resonance there was entire absence of breath sounds. The treatment now was by iodide of potassium, ether, and expectorants with poultices. The patient now, for the first time, related how that some time in September, while eating some "stew," she had swallowed a piece of bone, which had scratched her throat and made it bleed, and caused an attack of suffocative coughing much like that on the 5th December, and then been forgotten. I gradually evolved the theory that a piece of mutton bone, probably the end of a rib, and much larger than the patient would acknowledge as possible, had slipped down the trachea during the fit of coughing and lodged in the right bronchus. During November, probably mucus had collected behind it and become purulent and gradually dislodged the piece of bone which escaped from its place and was coughed up into the larynx on December 5th and fell back, and, during a forced inspiration, was drawn into the left bronchus and lodged there, causing the similar symptoms in the left lung with complete closure of a branch of the bronchial tubes leading to the apex of the lung. The patient scouted the idea It was impossible—the bit of bone could not have been larger than the shank of a tin tack, and did no more damage than just scratching her throat. So we arranged for a consultation with Dr. Verco, who did not view the theory with so much disapproval. On December 14th the patient was examined at Dr. Verco's house with his Röntgen Ray apparatus. Nothing definite was discovered, and she refused to undergo the additional fatigue of having a photograph taken of her chest. She remained in much the same condition, sometimes coughing a good deal, and sometimes having a bad night, but on the whole fairly well. The auscultatory sounds continued unchanged. On the 27th December I was informed that on the previous day, while lying at rest on her right side, Mrs. R—— gave two little gentle coughs and brought up a piece of bone. This ended her trouble, and she quickly recovered her usual health I shew a model of the foreign body made from a plaster of Paris cast of the fragment, which appears to be a portion of a vertebra of a sheep. and the wonder is that a foreign body of such a size and such irregular shape should have caused, practically, so little trouble.



A FOREIGN BODY IN THE RESPIRATORY TRACT.

BY W. T HAYWARD, M.R.C.S., HON. PHYSICIAN TO THE ADELAIDE HOSPITAL.

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I FEEL that I owe an apology to members for the fragmentary character of the following notes, but the lengthened period over which the case extended, and the fact that it was only intermittently under my observation, renders it difficult for me to do more than bring the salient points under your notice, but I think these points are sufficiently interesting to be worthy of being placed on record.

Prior to September, 1898, Mrs. L., at that time aged 31, was a strong, robust, healthy woman. On September 7th, she contracted German measles, with rather severe bronchial symptoms, which were still present on the 17th. On this day, while enjoying some mutton broth, and, curiously. enough, discussing with some friends the case of a young lady, who, after a visit to the dentist was found to have a tooth in her lung, felt that something had "gone the wrong way," and concluded that she had swallowed a piece of bone. She described the feeling as if something had passed into the chest, just inside the left nipple. Incessant coughing followed for the succeeding half-hour, and more or less continuously for the next three hours. This was accompanied by pain and a heavy sensation at the lower end of the sternum, which continued for a week or two and then passed off. Not so the cough, which has remained up to the present time. The cough was described as a "continual hacking," at times paroxysmal, almost like whooping-cough. There was more or less aphonia.

The patient first consulted me on December 13th, 1898. She was in fairly good condition, but she said she was thinner than she used to be. In addition to the above symptoms, she mentioned that a fortnight previously she had expectorated a quantity of blood-stained matter. Her breath was rather offensive, cough paroxysmal, expectoration muco-purulent and offensive. On examination of the chest the mobility was found to be normal, no abnormal dulness on percussion was found, rhonchi were present over the left lung, heart sounds normal. I diagnosed the presence of a foreign body, probably in the centre of the left lung.

On January 19th, 1899, I again saw the patient; the cough was still paroxysmal and frequent. The expectoration was, as a rule, scanty, but occasionally, especially on waking in the morning, she would bring up about an egg-cupful of purulent, brownish-yellow matter, streaked with blood, very offensive; the breath continued offensive; physical examination only revealed the presence of rhonchi in both lungs. Dr. Fischer kindly examined the respiratory passages for me, but could find no signs of a foreign body. During the next twelve months I saw the patient on two or three occasions, but was unable to detect any definite physical signs. The symptoms continued much the same; latterly she complained of pain in the left chest, which extended up the neck, into the left arm, and up to the outer corner of the left eye, causing twitching of the eyelid; breathing became short and gradually got more so; she had occasional attacks of shivering. On February 15th, 1900, she suddenly became much worse. The attack commenced with a violent rigor lasting some time, followed by vomiting, and intense stabbing pain in the left side, and she was very feverish. She was seen by Dr. Cecil Corbin, who diagnosed "Pleurisy." The pain extended to the clavicular region, and she was unable to move her left arm. Vomiting continued, but the cough was less severe, the expectoration as before. On February 20th, Dr C. Corbin aspirated, and drew off about a quart of stinking pus. No improvement taking place, I saw the case in consultation with Dr. Corbin on February 23rd. The surrounding circumstances not being favourable for operative procedure, we decided to send the patient to a private hospital in Adelaide. On February 25th, the patient being almost in extremis, I removed about two inches of the eighth rib and opened the chest, a very large amount of vilely smelling, thin, purulent fluid was evacuated, and the chest washed out with boracic acid solution, and two large-sized drainage tubes inserted. I had hoped to find the foreign body either with my fingers or with the aid of the flushing, but was unsuccessful. It is unnecessary to give minute details as to the subsequent condition, for some days it was critical, though the relief was great. The cough remained very troublesome, sometimes continuing incessantly for an hour or so. It was relieved by small hypodermic injections of morphia. The expectoration was rather profuse, at times only offensive. The discharge was fairly copious at first, but soon diminished in quantity, and lost its unpleasant charactor. The monotony of recovery was relieved by the occurrence of a miscarriage (three months), which ended happily for all concerned. The drainage tubes were gradually shortened, and were finally removed on March 28th, with the result of a general improvement of the patient. She returned to her home in the country on March 31st, having been five weeks in hospital. The wound continued to discharge for three weeks, when it healed, but broke down again three weeks later and discharged about a cupful of pus. It remained open till August, when it finally closed, and gave no further trouble.

Though the patient gradually improved as far as her general health was concerned, the cough continued much the same as before, and the expectoration was still fœtid. There was a considerable amount of dyspnœa, especially on exertion, but she continued to perform her household duties.

On February 6th 1901, she had a very distressing fit of coughing, which lasted for three hours, and she expectorated blood freely. On February 7th the cough was very severe, but she went on with her work, when suddenly she felt a severe cutting pain under the left breast coming across to the sternum, a similar sensation, only in the opposite direction, to that she had experienced when she swallowed the bone, and with a heavy cough she expectorated the piece of bone which I now show you. Immediate relief to the breathing at once ensued, and she has had no return of the dyspnœa. The cough continues, but is not paroxysmal, and it is gradually decreasing. The expectoration remained blood-stained for some days, but is now bronchitic in character, and diminishing in quantity.

I examined the patient on April 6th. I found her greatly improved in general health. She complained of some pain in the lower axillary region on deep inspiration, which she said was also induced by flatulence. I could find no abnormal physical signs on examining the chest.

The bone, as you see, is triangular in shape, flattened in form, with one edge smooth and thin, the other two roughened, the angles very sharp, two sides measure exactly ¾-inch and the third ½-inch, and it shows no sign of erosion. It is rather difficult to conceive how it could have got through the rima glottidis without being caught in the soft tissues, or having passed, how it failed to be impacted in the trachea.

I daresay it will appear strange to you, as it did to me, that a case of this kind should, till the attack of empyema, be so devoid of physical signs. It must be borne in mind that I did not see the patient till two months had elapsed since the accident happened. She had been under treatment for part of that time, but had failed to mention the fact that she had swallowed a bone, and the case was naturally looked upon as one of bronchitis following measles, and the medical man was at a loss to understand why it did not clear up. He incidentally mentioned that the left lung was mostly involved, and appeared to be doing little work.

Reviewing the case I think the following is probably the explanation of its course:—The bone lodged at the first bifurcation of the left bronchus, a spot not far removed from the described seat of pain—behind the left breast. Its shape allowed a certain amount of air to enter the lung, but the bronchus was partially occluded. After a while a bronchiectatic cavity was formed which allowed more air to pass, and it is probable that a mediastinal abscess resulted, having communication with the bronchus and emptied itself at intervals into it. Later on this abscess burst into the pleura setting up empyema, but healed during the time the chest was being drained, though it leaked again after the wound in the chest had closed and was finally healed. During the second time the chest wound remained patent. I do not think that the lung substance was ever implicated though the bronchial mucous membrane was congested, to this I can only ascribe the fact that a foreign body like this piece of bone could remain in the respiratory tract for a period of two years and five months, giving rise to more or less severe symptoms throughout that time and that the patient could ultimately recover

(For discussion on these papers see p. 191)

MRS. E. H. ROBISON née McEWEN, late of Prince Alfred Hospital, Sydney, and Matron, Mudgee Hospital, ANNOUNCES TO THE MEDICAL FACULTY, that she (having lately returned from Dr. Otto Walther's Sanatorium for Consumptive persons at Nordrach, Black Forest, Germany) HAS ESTABLISHED A SANATORIUM upon similar lines AT LEURA, BLUE MOUNTAINS, New South Wales. Terms on application.
"LYNTON," LEURA.

A CASE OF CEREBRO-SPINAL MENINGITIS OF FOUR MONTHS DURATION.

By J. Burton Cleland, M.B, Ch M. Syd, Resident Pathologist (late House Surgeon) Prince Alfred Hospital, Sydney.

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The following case of cerebro-spinal meningitis, primary in origin and probably "epidemic" in nature, seems worthy of record, and is specially interesting on account of the length of the illness (nearly four months), the misleading initial and the absence of many of the cardinal symptoms of the affection, the cause of death (external and internal hydrocephalus, really a sequela). and the contemporaneous fatal illnesses of two other members of the family.

W.O., male, *æt.* 33 years. Mother's account of illness:—Patient lived with his brother's family. Brother died from pneumonia seven days before patient's admission. While returning from the funeral patient was taken suddenly ill, having previously been quite well. Illness began with vomiting and purging lasting a day, followed by severe headache and pains in legs. Delirious day before admission: had had no shivers. Patient said that his joints had been swollen and tender off and on since the onset.

On November 3rd, two days after patient's admission, his nephew, a little child living in same house, died in hospital after an acute illness of a few hours duration, the *post-mortem* disclosing cerebro-spinal meningitis.

On admission, November 1st, 1900.—Head a little retracted; neck slightly stiff; seems drowsy; breathing, rapid and shallow, 44; with this the pulse rate is only 96, but the temperature 102°; tongue thickly coated; breath, heavy and foul; heart, chest, and abdomen "clear.' Arthritic system: Complains of pains in left hand, elbow, and shoulder, and in both knees and feet; left hand a little swollen; left metacarpo-phalangeal joint of great toe swollen and red, right less so. Nervous system: Pupils equal, react to light and accommodation; no facial paralysis.

November 2nd.—Very drowsy; breathing rapid and shallow at times, with pulse slow and soft; tongue now dry and cracked; herpetic eruption round lips; no cough; right knee swollen, not red, but painful on movement, and decidedly hotter than left; left hand also painful and decidedly hotter than right. Urine 1020, acid, cloud of albumen; has retention.

November 3rd.—Better, less drowsy; tongue moist and thickly coated; pain in joints less, and temperature lower; chest and heart clear.

November 4th.—Breathing varies from 28 to 40, chest being clear; abdomen rather distended; no typhoid spots; spleen not palpable; right knee still much the hotter.

November 5th.—More drowsy; right pupil a little the larger.

November 8th.—More stupid, and tries to get out of bed; subsultus tendinum very marked; cannot bend his head towards the chest, slight pain in the attempt; left pupil decidedly the larger; both pupils react to light, accommodation and painful impressions; knee jerks, plantar, abdominal and epigastric reflexes present; plantar flexion of toes with the reflex; passes urine under him; respiration, 28; pulse, 90; an occasional rhonchus in chest

November 9th.—Quite delirious; mutters to himself, and often very drowsy; almost continuous irregular trembling, semi-purposeful movements of hands, arms and facial muscles; his lip quivers, he frowns, he stretches out a trembling hand as if to grasp some shadow; temperature, 101°; respiration, 24; pulse, 96; tongue dry and coated; abdomen not distended. Ophthalmoscopic examination: fundi normal.

November 10th.—Widal's typhoid reaction negative. Same result on November 22nd, December 1st and 16th.

November 11th.—Rigor this morning with temperature of 102·4°.

November 12th.—Respirations very rapid again, 44, with pulse of 108.

November 15th.—Much the same; no pain on moving head, but experiences a peculiar disagreeable sensation; neck a little stiff. Urine 1010, alk., albumen, pus (latter possibly result of catheterization).

November 18th.—Still wanders much and mutters to himself; temperature fell to subnormal.

November 19th.—So restless that a hypodermic injection of morphia and atropine had to be administered.

November 20th.—Temperature irregular, from subnormal to 101°; patient becoming greatly emaciated; tenderness on compressing calf muscles; back a little arched. Lumbar puncture performed without an anæsthetic, no fluid withdrawn.

November 24th.—Abdomen flat; slightly rigid; spleen not palpable.

November 30th.—Temperature very high again, 104°; quieter.

December 5th.—Becoming very anæmic, skin smooth and ivory looking; much more rational.

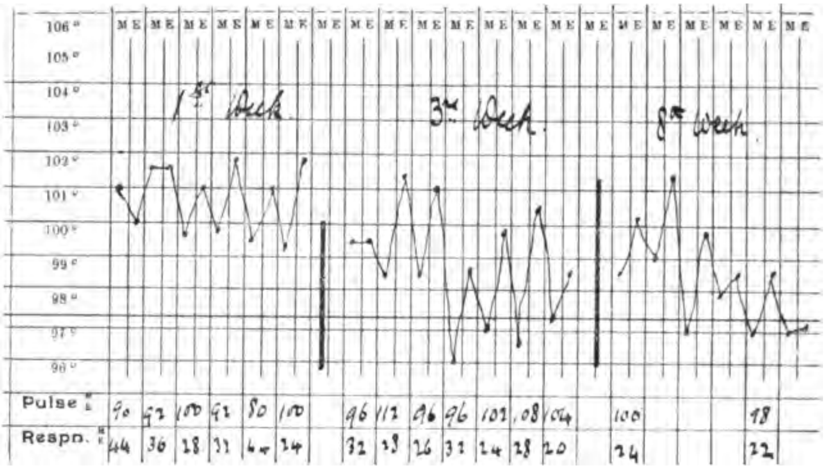
December 18th.—No optic neuritis; discs very pale and flat.

December 21st.—Hæmoglobin value, 30 per cent ; red cells 3½ millions per c.mm. ; no leucocytosis.

December 24th.—Vomiting a little.

January 6th.—Vomiting again, and diarrhœa; severe headache yesterday.

February 11th.—Very drowsy again ; slight rigor yesterday ; now very helpless and cannot swallow solid food.



February 15th.—Swelling, redness, and œdema with much tenderness over right parotid ; an incision made next day, but no pus escaped.

February 18th.—Œdema and redness extending over face and into neck; on free incision, the parotid was found to be sloughy and greyish-yellow in appearance. Patient now greatly emaciated and quite helpless ; neck and arms very stiff, his head turned to the left, and quite fixed ; face contorts on feeling pain, but he cannot cry out or speak or move his head.

February 21st.—Patient died, his temperature reaching 104° after being for some days at about 100°.

The Treatment.—Sodium salicylate was administered for the first few days for the joint symptoms, but without benefit. Later blue ointment was rubbed daily into the axilla. Apart from these the treatment was entirely symptomatic, viz., strychnine as a cardiac stimulant when indicated ; antikamnia when the headache was severe (with excellent effect) ; chloral, bromides, or morphia to combat the restlessness and delirium, and iron and tonics to relieve the anæmia.

The patient improved a great deal—so much so as to be allowed on a couch in the sun—until about three weeks before his death, when he gradually became more and more drowsy, more hazy in his remarks, and more helpless in his condition.

The Post-mortem Examination.—The body was profoundly emaciated, kidneys congested, lungs œdematous, spleen not enlarged. Superficial to the pia mater of the brain and spinal cord was a considerable amount of slightly turbid fluid ; in some places, for instance, around the cerebellum, semi-purulent. Several ounces of this fluid escaped from the vertebral canal and base of the brain. The lateral ventricles were much dilated, and filled with a turbid fluid containing thick yellowish-white flakes ; the convolutions were flattened ; the exudation was sterile.

The following points may be dwelt on :—The very slow pulse, high temperature, and rapid shallow respirations of the early stage ; the association with the disease, of swelling, heat and tenderness of the joints, indicating probably a general blood infection, the meninges being especially susceptible to involvment, the joints less so (several other cases in the recent epidemic of meningitis have shown somewhat similar joint affections) ; the septic parotitis ; the absence of any really distinct and diagnostic sign of meningitis till near the end ; the extremely irregular temperature throughout the course ; the occasional rigors ; the labial herpes ; the low muttering and subsultus tendinum (very characteristic in other cases) ; the absence of optic neuritis ; the failure of the lumbar puncture, possibly from the thick nature of the exudation at that time; the profound emaciation (also prominent in other recent cases, some of which have recovered); the pallor; and the presence of pressure vomiting towards the end.

The joint signs at first suggested acute rheumatism, but in all other respects the symptom complex failed. Typhoid fever in an aberrant form was more than once suspected; but Widal's reaction gave always a negative result. There were no physical signs of a pulmonary affection. This failure to correspond with any allied disease, and the possibility of explaining all the symptoms and signs on the grounds of its being a meningitis of acute microbic origin suggested such a diagnosis, the probability of which was much accentuated by the nephew's death from such a condition.

(For discussion on this paper see p. 192.)

CASE OF SCREW WORM IN THE EAR.

By A. P. Henzell, M.B., Mackay District Hospital, Mackay, Queensland.

Patient, David Waters, *æt*, 42 years, miner, working a copperlode at Cattle Creek, at foot of Eungella Ranges. A native of Kirkcaldy, Fifeshire, Scotland.

First symptoms, September 20th, 1899, with great pain in left ear during the night, and slight hæmorrhage from the same ear. During the following day, September 21st, the pain and flow of blood increased. Sweet oil was then poured into the ear, but the pain still increased up to 7 p.m. that night, when the patient reached home, some miles distant from the site of his work. Then syringed soap and water into the ear without effect, also hot oil. Pain not relieved. Chlorodyne (hy. ?) taken to procure sleep with little effect. The following morning, September 22nd, strong solution of salt and water syringed into the ear. Almost immediately the pain was relieved, and four worms were ejected from the ear. The patient then made a rapid recovery. The patient is a steady, sober man, and cleanly in his habits.

On examination of the worms (which had been preserved in salt and water) they were "white, threequarters of an inch in length, and formed of twelve segments carrying circles of minute spines, in fact, were identical with the screw worm (lucilia macellaria) described by Manson.

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NOTES ON STRABISMUS.

By G Affleck Scott, M B., C.M. Edin., Ballarat, Victoria.

I thought that some notes on the subject of common convergent squint, with reference especially to its surgical aspect, might be of some interest, seeing that much has been lately written and a good deal of experimental work done in the matter of strabismus. It is, moreover, a common affection, one most disfiguring to the patient, and a source of loss of sight in many cases—a threefold reason why it deserves consideration. As regards the cause of the affection, the usually accepted explanation of squint, as you remember, is as follows:—A hypermetropic eye requires to use its accomodation to see anything clearly in the distance, because parallel rays of light after entering the hypermetropic eye reach the retina before they come to a focus, and cause a blurred retinal image which the eye is only able to render clear by increasing the convexity of the lens, and thus bringing the rays to a focus nearer to the lens. The hypermetropic eye, therefore, finds itself in a condition of constant use of its accommodation for looking at any distant object, whereas the normal eye has only to use it for near vision. But as the normal eye makes use of its accommodation only in cases where the two eyes have to converge to see near objects, there has thus been extablished a close relationship between accommodation and convergence, and therefore, when the hypermetropiceye wishes to see any *distant* object clearly he must accommodate, and such accommodation implies the associated action of convergence of the visual axes. But that would remove the object from the line of vision, therefore the hypermetrope fixes the object with one eye and allows the other to bear the whole of the convergence instead of its normal half, and thus the squint originates. Then the squint which, from the fact that the convergence is a binocular matter, at first usually affects either eye, may settle down permanently into one, generally the less useful of the two. The patient learns to "suppress" the retinal image (in the squinting eye) of whatever object the squinting eye is directed to, and the strabismus is established. Now, with reference to this, there is, of course, no doubt as to the relationship between accommodation and convergence, but if the explanation were so easy, it would follow that hypermetropic and squinting would be synonymous terms. And if we were to consider the matter from observation of cases of strabismus, and find, as we do, that the enormous majority of them are in hypermetropic eyes, this explanation would answer well; but if we begin in the reverse direction, and look at the cases of hypermetropia instead, the question is not so easy. From my last 750 cases of errors of refraction, I have taken 270 (I intended to classify the whole when making the jottings from which I am quoting, but had not time). The 270 are not consecutive, but taken at about equal intervals. Of these 270 cases of refractive errors, 199 were hypermetropic, and of that number 17 had squint and three a history of previous squint, which had disappeared. While, therefore, the fact of, say, 90 per cent. of squints being found to be in hypermetropic eyes justifies the view that the relation between accommodation and convergence is a cause of squint, yet the other fact that, say, 90 per cent. of hypermetropic eyes have no squint, points equally to the conclusion that some other factor must be at work to cause strabismus; and that factor is to be found in the somewhat indefinite but, I think, valid explanation of a general balance of all the ocular muscles in the interest of binocular vision. Whether the strabismic disturbance of this balance be muscular, as Schweigger thinks, or connected with the centres of innervation of the muscles, as Grut supposes, we need not discuss. The result where this balance fails, is as regards binocular vision, an actual malposition of the muscles

Now granting a squint—the non-paralytic (or concomitant) convergent common squint which we are considering—what should be done? Almost all the laity and a proportion of the profession, say "Leave it alone, the child will grow out of it." I should like to emphasise the danger of giving such advice except after or even after consideration of all the facts of the case. (1.) Whether the unilateral amblyopia in cases of strabismus be due to the suppression of the retinal images in the squinting eye or be the result of some congenital defect (as some argue), *i.e.*, whether the squint causes the blindness or the blindness causes the squint, there is I think no doubt that disuse of the retina of squinting eye causes defective central vision, and to this a child is condemned by the advice, to let the squint alone. (2.) The tissues get less amenable to treatment as the child grows, and (3.) There is the objectionable disfigurement which is so bitterly resented by those whose parents have not "believed in operations." The only reason in support of leaving matters to nature is the fact that in some cases there is a tendency for a squint to disappear spontaneously as the patient grows up. This is, of course, perfectly true, but seeing that, as Berry I think rightly states, "the tendency for gradual disappearance of squint as patient grows older, when it does occur, is seldom before the tenth year," and seeing that the amblyopia which is found in cases of squint is almost always established long before that age, to wait for a possible natural cure would be to ensure the permanent evil results. And since, according to Panas, Professor of Clinical Ophthalmology in Paris, it is as a general rule useless to temporise after the eighth or ninth year (I am quoting from the last pamphlet I have of his, dated '96), this tendency to gradual disappearance of the squint does not help us to a decision. I am personally of opinion, firstly, that the amblyopia in squinting eyes is certainly in some cases due to the squint, and therefore preventable by the cure of the squint, and, secondly, that the spontaneous disappearance referred to does not frequently occur in a well-marked case of squint, but is commonly met with in cases where insufficiency causes a temporary strabismus, which never becomes fixed; and therefore I find little difficulty in deciding not to leave a squint to the chance of nature curing it. But, having so decided, the question then arises whether to treat the eye by operation or by convex glasses and muscular exercises. In cases of insufficiency and slight alternating squint, I should always advise prolonged non-operative treatment; but in the cases which come to one with marked strabismus, say 15° and over, whether alternating or fixed, the question of operation has to be considered. And the indications lie in the reasonable direction of finding out whether the prevailing cause in any given squint be the hypermetropia or the failure of muscular balance.

To arrive at this we must begin by excluding the action of the accommodation. It is certainly not an absolutely satisfactory method, for there is the unknown factor of the effect of the *impulse* to accommodation even in the absence of power to accommodate, which may cause the squint to persist under atropine. But it is the only rational proceeding, and a very simple one, to instil atropine into the eyes whenever a child is brought with a squint. If the squint disappears with the atropine, it is evidence that the cause of the strabismus is the hypermetropia, and the probability is that correcting the refraction by suitable glasses will cure the squint, therefore operation is excluded. If the atropinization does not cause the squint to disappear, then hypermetropia is not the whole cause. If the atropine makes no difference within two or three days, I advise operation without wasting time with exercises or glasses. If the atropine only slightly lessens the squint, I do not spend much time trying glasses, as the probability is that the hypermetropia is not the active cause. If the atropine makes considerable improvement, then I advise prolonged trial with suitable glasses and other exercises; but I must add that when a few weeks of such treatment has been without result, I have seldom seen improvement in the squint after months' and years' continuance of it, and I, therefore, am less inclined than formerly to look upon operation as a thing to be avoided if it is possible to do so.

It is frequently impossible to get a young child to wear glasses, or to get parents to give the treatment necessary. The visual harm may occur very early, and also even the continuous use of glasses very frequently fails to effect a cure of the strabismus, as in an example I shall immediately refer to. These considerations incline me to think that there is justification in some cases for earlier operation than we usually practice. The danger of the operation *per se* is almost nil, the possibility of divergent squint being caused by the operation instead of the convergent which was to be cured is practically the only thing to be considered. I think this occurrence is rare. I have only experienced it twice, in both cases slight; once in case to be quoted, where the "restrictive suture" gave way prematurely, and once where the effect of the operation was from some unknown cause above the usual, and divergence was just noticeable later, to the extent of about 1 mm. only. And in such rare cases it is easy to correct the little divergence by slight subsequent operation. I have frequently found insufficient correction of the convergence, but only twice, as I say, any over-correction.

Again, an early operation allows of the general muscular balance establishing itself with much greater ease than is the case with children of older age; and, therefore, while, as said, I exclude from operation all cases in which a cure can be reasonably expected by correcting glasses or exercises, I do not limit the age for surgical interference, but would make the indication for operation, not the passing of a certain age, but the fact that well marked squint is present and does not disappear under fair trial of atropine or glasses. The results in binocular fixation and vision are most rewarding, and there is no disadvantage to be apprehended except the very rare condition of over-correction to which I have just referred and that risk may be abolished by the substitution of advancement for tenotomy.

Then as to the method of operation.

The defect is the turning of the eye towards the nose—the cure must either be a tenotomy of the internal rectus so as to cause its tendon to become inserted further back, or an advancement of the external rectus so as to bring its tendinous insertion further forward. It is interesting to note the opposing views of equally eminent men on this point.

Nettleship, Carter, Juler, Berry, etc., write of tenotomy as the usual operation, but do not give satisfactory consideration to the question of its relative merits with advancement. De Wecker, Landolt, etc., favour advancement, while Knapp, of New York, inclines to tenotomy again.

Much the ablest treatise on the subject that I know is that published in two parts (1895 and 1896) by Landolt, in which he clearly and logically describes the evolution of his surgical treatment of strabismus from tenotomy to advancement. His method was first tenotomy single or double as required. Then he passed to tenotomy of internal and advancement of external rectus of the one eye instead of a tenotomy of both, then double advancement of external rectuses plus tenotomy of affected internal, and then he reached the stage of the external rectus of both eyes simultaneously performed without tenotomy at all, reserving the latter for the very rare cases where double advancement followed by appropriate exercises, is insufficient, in which case, he adds, tenotomy of internal on the affected side. Knapp, in his last chapter on the subject, refers to Landolt's treatment, but says he has gradually returned to the double tenotomy himself. He, however (I think), gives no reasons for this—he "states but the fact"—and this is unsatisfactory when he is opposing a man of equal or greater eminence than himself.

Landolt, writes: "Practising for a long time advancement of the two external rectus muscles without tenotomy of internal we have nothing but a choice among cases illustrating the excellence of this proceeding." And the first case he quotes "at hazard" is that of a child of four years with an internal strabimus of 45° which atropine reduced to 21°, and where he operated by simultaneous double advancement with perfect results, and so on through a number of cases cited. Apart from the question of possible divergence following tenotomies, his great objection to setting back ("reculement") of a muscle by tenotomy, is the limited range of movement subsequently and he shows this by numerous examinations. The inward movement of the eye is limited, therefore, convergence is interfered with. A second objection is the sinking of the caruncle and the risk of protrusion of eyeball, but he does not lay much stress on that. The advantage of advancement he finds in the range of movement, subsequently which is equal to, and in some cases greater than the normal. And he claims the entire absence of all chance of divergent squint subsequently. Referring repeatedly to the immediate effect of the advancement as "strong divergence," but adding "not having tenotomised the internal rectus we had not to fear any permanent excess of correction."

The only criticism I feel inclined to make upon Landolt's work is that he dismisses the successive methods rather promptly, *e.g.*, page 4 he writes: "The experience made in the service of our masters and *one case* in our own practice have sufficed to convince us the inconveniences of this method" *i.e*, tenotomy. That seems to me rather a premature conclusion and an insufficient reason for dropping a system. Again, his second phase that of advancement of external and tenotomy of internal rectus of same eye is dismissed in spite of admirable results both as to look, binocular fixation, and binocular vision on the ground that the range of internal movement of the eye is a little less than the normal. And one feels that he is moved along not as much by actual unsatisfactory results of one method as by his theoretical expectation of more satisfactory results from the next method. And a further conclusion in the matter is that with so satisfactory effect from all the different methods—*i.e.*, if each operator is giving honest results—and in spite of occasional failures to get complete success, the results of the operations by any of the methods is a very great gain to a mass of patients both as to sight and æsthetic comfort at almost inappreciable risk. Let me quote two or three cases illustrative of some points referred to.

(1.) H. W., 1898, aged 8 (?) convergent squint of 3.5 mm. left eye. Squint since birth. Not alternating, with also distinct upward element in the strabismus, which parents had noticed for past year only. M.H. 1.5D. Latent H. (?) 2 D. Squint is accompanied by nystagmus. V. 6/24 (?). Atropine caused slight diminution of squint. After four month's palliative treatment (without improvement) I divided left internal rectus. Result was complete cessation of nystagmus and disappearance of strabismus, and the eyes looked perfect when I saw them a year ago, about 18 months after the operation.

(2.) N. T., seen 1894, aged 6. Squint 4.5 mm., otherwise same as above, without the nystagmus or upward element; same treatment, but 12 instead of 4 months' palliative treatment, and same result.

These two are types of many other cases, and I quote them to show that a single simple tenotomy will cure a large number of cases.

In cases with squint 4 to 4.5 mm. it is, I think, better not to expect a single tenotomy to suffice, for although I have had a satisfactory and permanent (at least three years after operation) result with a squint up to 5 5 m.m., that is the exception. The usual full effect being at 4 mm. *i.e.*, = 15° to 20° or 4 to 6 m.a.

(3.) H.W., aged 5, 8mm. squint (about maximum possible) noticed since the age of two and a half years. Atropine dilation did not lessen the squint by more than ·5 or 1 mm. Low degree of hypermetropia and little latent hypermetropia. A tenotomy of internal rectus of the usually squinting eye with free division of sub-capsular tissue lessened squint to 3·5 mm. with accommodation used and 3mm. under atropine. After a year's interval, finding the strabismus no less, if anything rather increased, I divided the internal rectus on other eye, without touching the sub-capsular tissue and put a "restrictive suture" also; this suture however, gave way the second day and the result is slight divergence. It is just a few months since the operation and I cannot say yet whether the divergence will be permanent or not. This is, as I said, the only case but one that I have seen of over correction from tenotomy.

The next case is similar to this in that the stabismus was same degree, occurred at about the same age, and I did a double tenotomy at about the same interval of time as the one just quoted.

(4.) D.M., *æt.* 10, 8 m.m, squint lessened by atropine to 5·5 mm., and, therefore, more benefit to be expected than in the previous case from use of glasses. This child had been wearing correcting glasses ordered by Dr. Jackson and checked by myself, for six years constantly without any improvement. In this case I did tenotomy of internal rectus on the usually squinting side with free division of sub-capsular tissue, with better immediate result than in the other case, for the eyes looked straight for a time. Then the convergence developed again instead of the divergence which we have always been taught to fear, and after eight months with constant wearing of correcting glasses and convergence of about 3· · mm. persisting, I did a tenotomy on other side, and although here I freely divided the subcapsular tissue at *both* tenotomies, and did not put in a restrictive suture at all, the eye has showed no tendency whatever to divergence, and it is now three and a half years since the second operation. There is good binocular fixation and vision; the child can do a fair amount of reading, even without glasses, and no convergence occurs; but if the reading is prolonged the eye occasionally converges slightly with or without her glasses, and occasionally, also, when the child is very tired, squinting occurs.

The hypertropia was about the same in both these cases, and the difference in effect indicates partly the less amenableness to treatment as the child grows, to which I have referred, as well as the difficulty of forecasting exact effects in such cases.

Next note (5).—L.S. (*æt.* 19) five years ago, is a case of, as I think, amblyopia caused by disuse. The strabismus was not alternating, and of extreme degree 9mm. The hypermetropia small in degree only, ·75 manifest and ·5 latent. Squint since one year old and vision down to 6/60. Operation by double tenotomy, separated by four months' interval, with result that strabismus disappeared and slight improvement of vision took place on affected side. When I last heard of patient, a year after operation, the eyes were straight. In this case I freed the sub-capsular tissue more than in the others without any ill-effect.

An earlier case (E.C.), same age as above (19), with 8 mm. squint, I did a tenotomy 14 years ago without touching the sub-capsular tissue, and the result was an improvement of barely 1.5 mm The father said I was no good, and took his son to Melbourne, where a second tenotomy was performed, with a result I should judge of about 4 mm. improvement further. Here I should have done an advancement had I had the chance.

I quote this to show how small an effect we sometimes get from a tenotomy. And lastly, another case to which I have referred to show how ineffectual the use of glasses sometimes is even in promising cases.

(7) Seen first in 1887, age 66. Dr. Jackson had two years previously ordered correcting glasses to be constantly worn to cure the squint. The case was one of M.H., 2·5 with 1.D. As. and a latent H. of ·56. Under atropine or with glasses the strabismus was reduced from 5 mm. to 1½, so I had no hesitation in simply endorsing Dr. Jackson's opinion and sending the patient back to Dr. J., who attended the case continuously. I did not see the patient again professionally till three years ago. He had worn fully correcting glasses then constantly for fourteen years, and the squint had remained absolutely in *statu quo*, both with glasses and without glasses being no better than at first. There was always great asthenopic trouble, and there was never binocular fixation. I would have operated even then, but the patient went to South Africa, where he has since died.

I have quoted only cases which I think may be called typical, and I conclude from them and the cases they represent that the refraction and muscular treatment are very frequently insufficient; and that operative procedure is undoubtedly indicated in many cases of strabismus. As to which operation to choose, I have to confess that it is very difficult in a case where equally experienced men are directly opposed to each other, and where practice and not theory must decide the matter, to come to any stable conclusion except by personal comparison of a large array of cases with the results of different methods of procedure; and in the absence of such data, I can only speak provisionally and give you opinions which, like a politician's, are ready to be changed.

I have, however, seen a sufficient array of cases of strabismus cured some by single and some by double tenotomy that I am not yet prepared to give it up even at Landolt's recommendation—the sinking of the caruncle and protrusion of eye, I have not been troubled with. The patients have further been subsequently able for severe study without any symptom of defective convergence, so that while Landolt is right that the convergence is restricted, yet it does not appear to be so much restricted as to interfere with ordinary work, where it is of course not used up to the maximum. The main point to my mind to recommend Landolt's view is (*i.e.* if he is correct in so stating it) the absence of risk of divergence which does sometimes occur in cases of double tenotomy. But against this there is the fact that advancement is not nearly so simple an operation as tenotomy and takes much longer in healing, although Landolt reasonably replies that, compared with permanent benefit, a little longer convalescence is a small matter. Landolt bases his double advancement operation in all cases on the fact that strabismus is the expression of a binocular defect, and claims that it should therefore be binocularly remedied, but he does not consider the further fact that this binocular defect expresses itself entirely on one side, and that, therefore, it may be equally reasonable to perform a monocular remedy. While, therefore, I am quite open to move in the direction of Landolt's conclusion, I am at present satisfied (1) to prefer single tenotomy in cases of less advanced strabismus, once an operation has been found advisable; (2) to adopt the advancement of external with tenotomy of internal rectus in the more advanced cases; and (3) in extreme cases to carry out Landolt's treatment of simultaneous double advancement of external recti, adding a later tenotomy of internal rectus if necessary.

I have left no time for consideration of the method of performing the operations The fact, however, strikes one that although the various methods are numerous, yet operators equally skilled get equally good results from different methods. As regards tenotomy I prefer Graefe's long conjunctival incision to Critchett's subconjunctival operation. The case seems to me to be more parallel to an ordinary operation, where free skin incision is done, than to a subcutaneous tenotomy operation.

As regards advancement operations, so far as I have done them, I prefer Schweigger's neat and more accurate operation of excising a measured piece of the muscle to be advanced and stitching the cut ends together, though I have guarded myself by adding a simple double anchoring thread through the episcleral tissue.

PROCEEDINGS OF BRANCHES.

QUEENSLAND BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

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A GENERAL meeting of the Branch was held on Friday, April 12th, 1901, the following members being present: Dr. Taylor (president), Drs. J. Thomson, Wilton Love, Carvosso, Hopkins, Sutton, Orr, Hawkes, Flynn, Lightoller, Wield, Espie Dods, Connolly and Brockway (hon. sec.)

Dr. **HAWKES** exhibited (1) Uterus removed for carcinoma; (2) Uterus removed for fibroma.

Drs. Ormerod (Thornborough), Waugh (Montalbion), and White (Thursday Island) were unanimously elected members of the Branch.

Ballot for the position of curator of the library and museum, with a seat on the Council, resulted in the election of Dr. Sutton.

Dr. MacEvoy, of Beenleigh, was nominated for membership of the Branch.

Dr. **LIGHTOLLER** read the following paper:—

SOME NOTES CONCERNING PAN-HYSTERECTOMY BY MEANS OF DOYEN'S FORCEPS.

BY H. M. LIGHTOLLER, M.D., M.R.C.S.

READ BEFORE THE QUEENSLAND BRANCH OF THE BRITISH MEDICAL ASSOCIATION,

◆

SOME two years ago I had the opportunity of watching forty operations of vaginal hysterectomy performed by first-class men by means of Doyen's Forceps. Each spoke well of them, and considered they would come into much more general use as they became more widely known. I did not watch these operations from a distance, but in each instance stood directly behind, or to the side of the operator, and in some cases was enabled to offer minor assistance. I followed each case from the operating table to the ward, and from thence to convalescence or death, as the case might be. I took careful notes of each case, and followed every detail of the operation and its technique with scrupulous care. I listened to the opinions expressed both by the operators themselves, and also of those men from various parts of the world who were upon the same errand as myself, and therefore I think I can, form a very fair opinion as to the statements made regarding the value of the operation, and am enabled to judge if they are substantiated by facts or otherwise.

There is, of course, nothing new in the clamp operation, which has been in use for many years, but there are one or two points in which the operation by means of Doyen's Forceps, differs from the older operations.

I am perfectly aware that some surgeons do not like a clamp in any shape or form—they consider its use unsurgical—but when such men as Doyen himself, who is, perhaps, the leading gynæcologist in France, Sänger of Leipzig, Donald, Walter, and Lloyd Roberts of Manchester, Galabin of Guy's, and many others speak well of it, I think, to say the least, it is worthy of our consideration here. In some schools (I believe Guy's Hospital is one), they do not allow torsion even for small vessels. If after pressure with Spencer Wells there is hæmorrhage they ligature—they say it damages tissue to apply torsion—personally I have nothing to say upon this point otherwise than this. If I get a vessel in such a position that it is difficult to apply a ligature, and it does not cease bleeding after being gripped by Spencer Wells, I should apply torsion, and I doubt if a twisted vessel is in any worse condition than one with a ligature around it. I shall be glad if some gentleman here will give us the benefit of his opinion upon this point. During the period I saw these forty cases of pan-hysterectomy by means of Doyen's Forceps, the operation was rapidly coming into favour with many of the most advanced gynæcologists. Dr. A. Donald, gynæcologist to the Manchester Royal Infirmary, and St. Mary's Hospital for Women, rarely, if ever, resorts to ligature. I saw him do twenty-eight cases with one death. His advice to me was —"Always do this operation in place of ligature if you can. I have given up ligatures almost completely." This is the advice of a man who averages, say, fifteen or sixteen major operations weekly. Then there were others, all gradually falling away from ligature—Stanmore Bishop, Dr. Walter, Lloyd Roberts, Galabin of Guy's, etc. Each of these I was able to watch, time, times and again, closely and carefully, and in the forty cases I saw two deaths, one from sheer exhaustion, she being a poor emaciated thing from the start, the second, according to Professor Delepene, was due to typhoid fever.

DOYEN'S FORCEPS.

1. It is requisite that the temper and material should be faultless. [Colin, of Paris, is a reliable maker.]
2. You will notice that the blades close at the ends before the middle.
3. That each blade has a groove running down its centre; this makes their grip firmer and more reliable.

I will take the classes of case for which these forceps are eminently suitable, namely:—Firstly, carcinoma of the cervix and uterine body; secondly, pan-hysterectomy for bad cases of chronic pelvic cellulitis. Cases of deciduoma maligna and some cases of hysterectomy for fibro-myoma may also be classed with these

The genitals having been shaved* the day before and these together with the vulva and vagina having been thoroughly washed with soap and water, the patient when under the anæsthetic, undergoes a further and more thorough cleansing, each operator having his own special routine. I will give Dr. Donald's plan. The genitals having been shaved, they are thoroughly washed with plenty of hot soap and water, using a large swab of absorbent cotton wool as a sponge, the vagina is then thoroughly swabbed out with several fresh sponges of the same material, plain hot water is then used in the same manner to all the parts, then a swab dipped in turpentine is used thoroughly, this again is washed away with warm soap and water, then plain warm water. A solution of hydr. perchlor. or biniodide is now used, being well rubbed in and vagina thoroughly mopped out. Lastly, a solution of lysol and warm water is used. The last use of lysol is undoubtedly convenient and helpful, for, after a solution of hydr. perchlor. the vagina is so influenced by the astringent as to be most difficult to deal with, the lysol obviates this at once. An Auvard's, or modified Sims' speculum is now inserted into the vagina, the cervix seized by mouse-toothed forceps and drawn well down.

I believe the generally accepted idea at the present time is, that many of the cases of recurrent carcinoma after hysterectomy, are due to inoculation of the freshly cut vaginal and other surfaces by the cancer cells, or the micro-organism peculiar to cancer if such exists. In order to avoid this risk as much as possible, the following plans are partially or wholly adopted by most operators. In cancer of the uterine body the cervix after special cleansing has a strip of iodoform gauze inserted and the os externum carefully sutured. In cancer of the cervix the cautery is freely used by some, others curette freely, swab with strong perchloride, stitch up as far as possible, and, after again cleansing the vagina, proceed with the operation. The cautery is used by some instead of the knife when doing the anterior and posterior colpotomy.

Having a good grip of the cervix with one or more pairs of mouse-toothed forceps, it is pulled well down towards the vulva—this, of course, cannot be done if the uterus is fixed from extension of disease to the tissues outside the uterus—but in cases such as this, the operation is unjustifiable and useless except in very exceptional instances. Again, in cases of chronic pelvic cellulitis the uterus cannot be drawn down any distance, as the meso-metria, pelvic cellular tissue, fascia, etc, are all more or less matted firmly together; but I shall refer to this later.

Regarding the advisability or otherwise of removing cancer by vaginal hysterectomy, the first thing is to determine if the uterus is movable or not. Now this cannot be determined by a bimanual alone, to make sure that the meso-metria and utero-sacral ligaments are not to some extent involved. Take a good grip of the cervix with a pair of mouse-toothed forceps, pull or try to pull it down to the vulva; if you cannot do this the broad ligaments are probably involved. Again keeping a good pull on the cervix, make a rectal examination of the utero-sacral ligaments. If the cervix will come down to the vulva, and no thickening can be felt with the finger in the rectum of the utero-sacral ligaments, tension still being kept up during the period of examination, we may conclude that so far as physical signs go the disease is confined to the uterus, and is a favourable one for vaginal hysterectomy.

A circular incision is now made through the mucous membrane, where it is reflected from the vagina on to the cervix. Then, with a pair of scissors bent on the flat, a few sharp snips are made down to the uterine tissue in front; when this is reached, by means of the fingers and scissors the bladder is stripped up in front and well out on either side. This lateral stripping is important, as it assists in keeping the ureters out of the way; it is as well to remember that the ureter lies about ·5 or ·6 from the cervix on a line drawn from the external os. The anterior fornix having been freely opened, the peritoneum is seized with a pair of forceps, opened with scissors, and the anterior layer stitched to vaginal mucous membrane.

The posterior vaginal fornix is opened, the peritoneum being stitched to the vaginal mucous membrane on the posterior wall. The intestines will now probably come into view, and to prevent their prolapse into the vagina a fairly large aseptic gauze sponge fastened in the grip of a pair of forceps sponge-holder is pushed well up through the opening in the posterior vaginal fornix. Now carefully strip the mucous membrane back from the sides of the cervix.

In a case of cancer of the uterine body or cervix the next step is to antevert the uterus in such a manner that the fundus tilts through the anterior vaginal opening.

Doyen's forceps are now applied from above downward, being careful to strip all loose tissues away from the neighbourhood of the cervix before closing the blades; if this is not carefully attended to the ureter may be caught. Keep the blades close to the cervix, close the handles as tight as they will go, and snip the uterus away upon that side. This being done, it is easy to do the other side, as the uterus is now freely movable. This having been accomplished, the uterus is away. The anterior and posterior vaginal flaps being held with a pair of Spencer Wells, several spongings are resorted to, to see that all hæmorrhage is controlled. Doyen's forceps, which were placed from above downwards, are now looking from below upwards, so giving the meso-metria a half twist. Very gentle traction is made upon the handle, and several long strips of iodoform gauze are packed into the wound well up against the intestines, and so, in reality, into the peritoneal cavity This packing requires to be thoroughly done in such a manner as to support the intestines well up and at the same time interpose between the points of the Doyen's forceps and the rest of the peritoneal cavity. The clamped tissue in the bite of the forceps is thus more or less surrounded by the gauze, and does not come in contact with the intestines. The vagina is packed well with gauze, the handles of the Doyen's forceps secured with a silk ligature thread in case of accident, and the operation is complete. A short time ago I mentioned that in cases of chronic pelvic cellulitis the uterus was fixed and could not be drawn down.* the following plan is adopted: Two pairs of powerful mouse-toothed forceps are fixed, one to either side of the cervix; traction downwards is made, and with a good pair of scissors the uterus is split from fundus to cervix. If traction is kept up, strange to say, there is no hæmorrhage. So soon as the uterus is divided, the application of the Doyen forceps becomes easy and without difficulty. The Doyen's forceps are allowed to remain for thirty-six to forty-eight hours, then removed.

So much then for the operation:—(1) Those who use these forceps claim for the operation that it is rapid, which is a matter of much moment; (2) That it is clean—no ligatures are left hanging out of the vagina; (3) The results are good.

Now, the objections raised against it are numerous. Some of these, I venture to say, are not so serious as their originators would have us think. I will mention those I have heard.

Q. 1.—Danger of fatal hæmorrhage from slipping of forceps?

A.—I do not think if they are properly applied that there is any more danger than in cases of ligature—this objection might apply equally to both.

Q. 2.—Possibility of clamp catching one or both of the ureters?

A.—Here again the same thing applies to ligature. I doubt very much if any more ureters have been clamped than have been tied. The best operators living have made the error both in ligature and forceps.

Q. 3.—Liability of intestinal adhesions to margin of wound, causing intestinal obstruction?

A.—The intestines do not come into contact with the margin of the wound. Long before the gauze is removed, a vault, so to speak, of lymph is formed upon which the intestines rest.

Q. 4.—The large open channel between vagina and peritoneal cavity invites septic peritonitis?

A.—All I can say is that no cases of sepsis occurred in the forty cases I saw. Again, free drainage is one of the greatest safeguards against sepsis. In thirty-six or forty-eight hours, the peritoneal cavity is completely shut off from the vagina by exuded lymph.

Q. 5.—The ends of the forceps placed high up must protrude into the peritoneal cavity—which cannot, as in the case of suture, be closed above them so as to make the stumps extra-peritoneal—the result being that the peritoneal cavity may become infected from the necrosed tissue contained in the bite of the clamps, this will especially happen when the stumps released from the weight of the forceps spring back into the peritoneal cavity?

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* The non-closure of the vaginal vault by sutures, and simply packing with wool or gauze was mentioned at the International Congress of Medicine in Paris, August last, by Professor Dmitri de Ott of St. Petersburg, and Dr. T. Cullen, of Baltimore.

A.—In Allbutt & Playfair's Gynæcology, page 627, Knowsley Thornton says:—"I have never been able to understand the great trouble taken by most abdominal surgeons to shut off stumps and raw surfaces from the peritoneum; all experience shows that if the operation be aseptic, effusions of blood are much more rapidly and harmlessly absorbed by the peritoneum than by torn and cut cellular tissue; and experience likewise teaches that adhesions left free in the peritoneum are very rare."

The ends of the forceps are surrounded by iodoform gauze and the stumps contain in their bite are also in contact with the gauze. The peritoneal cavity is as I have mentioned before quickly shut off from these.

Braithwaite, in 1894, showed how these stumps might be made extra-peritoneal if required.

Q. 6.—The intestine is apt to be nipped in the forceps?

A.—This is impossible when the forceps are used as I mentioned from above downwards.

Q. 7.—The liability of adhesion of intestine to the margin of the wound causing perhaps fatal obstruction?

A.—The intestines do not come in contact with the wound, they are separated by the vault of lymph.

You may say what is to become of the pelvic floor if all this packing is allowed. One thing is certain, in six months after the operation a vaginal examination reveals a perfectly tight closed roof which even the most careful suturing to begin with could not improve. This I can vouch for after examination of at least twenty-five cases.

I think amongst the advantages may be claimed, rapidity, simplicity, excellent result. After twenty-four hours if all is going well there is practically no pain, only the inconvenience of the instrument and packing. In cases of hysterectomy for chronic pelvic cellulitis, the large hole at the top of the vagina is of vast advantage, for in these cases drainage must be free.

Now, gentlemen, there are just two points to which I should like to draw your attention:—Firstly—What are the results of vaginal hysterectomy for cases of uterine cancer? I mean, what are the probabilities of life after the operation, be it by ligature or forceps? I have looked up a mass of statistics from various sources, British and foreign, which I will not trouble you with. There are cases which appear to have recovered completely, there are some who have lived for 6, 7, 8, 10, 12 or more years after the operation; but these, gentlemen, are unfortunately the exception, and if you go carefully into numbers I think you will find that the average term of life is from two to three years. This also was the experience of those operators whose names I have mentioned in these notes; but although the average span of life is lengthened by so little, and in many cases still less, yet I think we may claim that the unfortunate woman is still the gainer, she is saved from the awful death by uterine cancer, which, in addition to its pain, cachexia, and generally increasing weakness, bears with it all that is loathsome and trying to the mind and senses of a woman. Death after removal is generally due to secondary deposits in some internal organ.

Just a few words, gentlemen, in conclusion, regarding the diagnosis of cervical cancer in its early stages—for upon this, as in all other cases of cancer, the success or non-success of an operation depends.

Professor Sinclair, of Manchester, was, I believe, one of the first, if not the first, to draw attention to the sharp curette as a means of clinical diagnosis, and from what I have myself seen, I do not think it can be spoken of too highly. I do not for one instant wish to decry the microscope—by its aid in many cases all doubt is removed, but not in all. Allow me to quote some authorities upon this point:—

Herman, of The London, says:—"I think the value of the microscope in the clinical diagnosis of cancer has been over estimated. A diagnosis based upon the microscopical examination of sections of tissues must be accepted with great reserve."

Auvard says: "There are cases of malignant adenoma in which it is difficult to make out any distinction from the structure of simple adenoma."

Professor Sinclair says: "Pathologists who were specialists in gynæcology have made the following errors: Hyperplasia of the uterine mucosa has been mistaken for sarcoma; the decidua of a post-abortum uterus has been diagnosed as a sarcoma; degenerated placenta for a gumma of the liver, etc. If you will allow me I will quote a few words from Prof. Sinclair's article as to the use of the curette as a means of clinical diagnosis."

Quotation from Professor Sinclair, page 675, Allbutt's Gynæcology :—" What we require is an easily applied clinical method of diagnosis such as will distinguish early cancer from any other condition which a practitioner of average knowledge and intelligence could possibly mistake for it, a method which gives at the same time a moral certainty, or at least the very strongest presumption that the diagnosis depending upon it is correct. Such a method of distinguishing between early cancer and other conditions which more or less resemble it, is that of applying the test of friability of tissue which is characteristic of malignant disease. If in any given case under examination the results obtained by palpation and the closest visual inspection still leave some doubt in the mind of the practitioner whether the condition be early cancer of the cervix, the doubt will, in my opinion, be invariably cleared up by ascertaining the amount of friability of the tissue. The suspected vaginal portion must be thoroughly exposed by a suitable speculum. and the uterus held steady with volsella. Here with the sharp curette or spoon an attempt is made to scoop out some tissue from the suspected area. If the disease be malignant a definite compact piece of tissue, larger or smaller according to the extent of the infiltration, and consequent friableness of the tissue thus operated upon will be obtained. If the disease be not malignant a firm rub with the sharp curette will only make the part bleed, and, at the most, some small thin threads or a pellicle of semi-translucent epithelium or of granulations will be detached. The difference is very strikingly brought out by comparing the effects thus produced upon a case of old chronic cervical catarrh marked by hypertrophy, ectropium, and retention cysts, with the effects produced by similar forcible application of the spoon to the tissues in the early stage of epithelioma."

Personally I have the notes of two cases which impressed me very much. In each case three medical men were engaged to form a diagnosis. When under ether the cervix had, so far as the eye could detect, all the appearances of cancer in a fairly early stage. A microscopical examination of the tissue confirmed this, yet one surgeon, a man of wide experience and a firm believer in the curette, objected to do a hysterectomy, since the curette showed no friability of structure. The case was well in five weeks. Again, case 2 : When under ether the cervix looked simply like a well-marked erosion, nothing more ; the microscope gave no clue either for or against cancer. The surgeon who used the curette advised hysterectomy at once, but was over-ruled by the other two. That woman died of acute cancer in six months."

Regarding the influence of age and marriage upon the frequency of cancer, I quote the following :—

Schrœder says: Of 1,237 women attacked with cancer, 753 were from 40 to 60 years old. Of 1,000 women attacked with cancer, 771 were married. Of 948 women attacked with cancer, in 78 only was it hereditary.

In the Frauen Klinik, Munich, of 678 cases of cancer of the uterus, the mean age was 45 years, the youngest being 24, the oldest 73.

Amongst some of the earliest reported cases we have :—

Eckhardt reports the case of carcinoma of cervix in the case of a virgin aged 19.

Biget reports the case of carcinoma of cervix in the case of a virgin aged 19.

Glatter reports the case of carcinoma of cervix in the case of a virgin aged 17.

Schauta reports the case of carcinoma of cervix in the case of a virgin aged 16.

Rosenbim reports the case of carcinoma of cervix in the case of a virgin aged 2.

The ten most susceptible years are from 40 to 50.

Dr. CONNOLLY considered ligatures much more difficult of application than forceps in the vaginal operation. He had found anteversion, or anteflexion of the uterus, as it should properly be termed, much more difficult in practice than appeared from a perusal of the procedure. He much preferred the abdominal route for hysterectomy, and emphasised the great advantage of the Trendelenberg position, as enabling a good view of all the steps of the operation. He spoke of the difficulty of cutting through the peritoneum in the vaginal operation, the structure being reached with difficulty, and also of the difficulty of working in Douglas's pouch. He mentioned a case in which bowel had come down between the uterus and bladder—a rare complication—and had been nipped by the forceps, producing fatal obstruction of the intestine, though the edge only of the gut was caught in the forceps.

Dr. HOPKINS stated his preference for the ligature. He considered that there was risk in the use of the clamp, in that other parts than those intended might be caught in the blades of the forceps, and also from sepsis arising from necrosis of the tissues between the blades. He did not ligature a mass of the broad ligament. but worked up gradually, tying as he went, and cutting the ligatures short, and preferring to keep the uterus straight, not ante or retro-verted. If a clamp were to be used he had a preference for that of Greig-Smith.

Dr. HAWKES thought that the class of case for which Doyen's forceps were suitable was limited to those in which the uterus could be easily brought down into the vagina. He thought that the method advocated by Dr. Lightoller might be quicker for surgeons with very large experience in operating, but that for an ordinary surgeon the abdominal route was the better and quicker. He regarded the use of iodoform gauze as a source of danger, since when it came away there was a risk of bowel prolapsing, and since to leave necrotic tissue was bad surgery in all other kinds of operative work it could not be considered advisable in operations upon the female pelvis. He considered it of the utmost importance, for ordinary operators, that a good view of all that is to be done should be obtained, and for that reason specially advocated the abdominal route.

Dr. **Carvosso** enquired as to the manner in which the vaginal vault closed after the removal of the iodoform gauze.

Dr. **Wilton Love** remarked that Australian surgeons generally expressed a preference for the abdominal route, he himself having experienced much difficulty in operating by the vaginal method in cases of senile contraction of the vagina; that Kelly's method of operation appeared to him to be the ideal one, and to have produced more favourable results than that by the vaginal route. He quoted Dr. Worrall as condemning the large sized Doyen's forceps, he himself having had a case in which the actual weight of the forceps, though wrapped carefully in aseptic gauze, had produced necrosis by pressure. He stated that Pozzi advocated at least three cleansings of the parts before asepsis was assured, first by soap and water, secondly by some such agent as turpentine, and thirdly by lysol. So far as diagnosis was concerned, he would advocate a combination of the use of the curette and the microscope.

Dr. **Wield** asked when the forceps were removed, and what relative risk of hæmorrhage there was?

The **President** joined with the other speakers in congratulating Dr. Lightoller upon his most useful paper. He thought that there might be some risk of matting together of the intestines above the lymph-vault produced in the vaginal operation.

Dr. **Connolly** referred to the difficulty of reaching the ligatures if cut short, and related a case in which a sinus had discharged for two years from such a ligature.

Dr. **Lightoller**, in reply, remarked that anteflexion was a better term than anteversion, since the cervix was kept well down by means of volsella so as to avoid soiling the peritoneum; that if the iodoform gauze were brought away too soon there was risk of prolapse of bowel, but, if left for eight or nine days, absolutely none, though by that time the temperature chart evidenced the presence of sepsis, which, however, was readily combated by antiseptic douches. He said that there was no risk of hæmorrhage unless the forceps were removed before thirty-six hours, and that the closure of the vaginal vault by lymph was automatic.

A General Meeting was held on Friday, May 3rd, the following members being present:—Dr. Taylor (President), Drs. Thomson, Lockhart Gibson, Cameron, Lightoller, Wield, Hopkins, Kerr Scott, Hirschfeld, Connolly, Espie Dods, Orr, Halford, and Brockway (Hon. Sec.)

Dr. **Lockhart Gibson** exhibited an excised eye. (Remarks on which to appear in the next issue.)

Dr. **Hopkins** exhibited a patient suffering from annulus migrans, or ringworm of the tongue, and in remarking upon its comparative rarity, read an extract dealing with the subject, by Mr. Barker, from Holmes and Hulke's "System of Surgery."

Dr. **Thomson** had seen a number of cases of "geographical tongue," which he regarded as similar in character to that shown.

Dr. **Lockhart Gibson** had seen similar cases, and suggested treatment by grey powder.

Dr. **Hirschfeld** had seen a somewhat similar condition in typhoid fever.

Dr. **Hopkins** remarked upon the rapid changes in appearance of the disease, and regarded "geographical" or "wandering rash" as confined to infants and young children, and practically always due to syphilis.

Dr. **Connolly** exhibited a complete two months' abortion, with decidua attached. The patient had a large fibroid on the left side of the uterus, extending into the broad ligament, and he had advised hysterectomy. The patient, however, who had had several miscarriages and one still-born child at term, was very anxious to have children.

Dr. **Connolly** exhibited a brain with tumour, and read notes of the case as follows:—

TUMOUR OF BRAIN.

By F. G. Connolly, L.R.C.P. Lond., M.R.C.S., Brisbane.

W.M., *æt.* 20, bank clerk, was first seen by me on March 6th, and complained then of indigestion and vomiting of food. Enquiry elicited the facts that the vomiting was unaccompanied by nausea, occurred at various times, and was not associated with the presence of food in the stomach; that there was constant and severe headache, chiefly confined to the frontal region, and giddiness, especially when getting up suddenly; also that his sight was failing, that he found that he had to look very closely at his work in the ledgers. Optic neuritis was well marked in the eye examined—one eye only being examined on account of the interference with vision produced by the atropine. He stated that if he rose suddenly from the recumbent to the erect position he was quite blind for a few seconds. There were no evidences of meningitis, lead poisoning or Bright's disease, and the diagnosis of tumour of brain was made.

Family History.—Father died from intestinal obstruction due to a band; mother died from phthisis, her side of the family showing a strong tubercular tendency, the patient himself having a spare or tubercular appearance. Dr. Orr examined the eyes on March 7th, and reported double optic neuritis, no hemianopsia, vision being almost normal, with some difference in the two eyes. His diagnosis coincided with that already made. At the request of the uncle of the patient, a medical man, a further consultation was held, Drs. Thomson and Lockhart Gibson seeing the patient. The diagnosis was agreed with, and it was considered probable that the tumour involved the cerebellum, and that it was of a tubercular nature.

Treatment had no effect: the vomiting continued until six days before death. The nature of the vomiting was remarkable; it began at 4 a.m. or 6 a.m. (according to the time at which the patient woke) and continued until midday, ceased for sixteen to eighteen hours, and then recurred as before. Headache was very severe, and was confined for most of the time to the *left frontal* region, especially over the supra orbital foramen; tapping the skull at this spot was painful at first and not later. During the latter part of the illness the headache moved to the right side, and once or twice there was some complaint of headache in the occipital region. The sight of the left eye failed rapidly, and within a month of being first seen was quite lost. The sight of the right eye also failed, and from within ten days of his death the patient was totally blind. There was no paralysis or loss of sensation, nor any rise of temperature, his pulse remaining pretty constantly 85 to 90. There was no history of syphilis. Treatment by large doses of iodide of potassium, combined, later, with perchloride of mercury, produced no effect. Antipyrin, with bromides, appeared to reduce the extreme headache, but no effect upon the vomiting was produced. A very severe convulsion, the only one, occurred six days before death, after which he became unconscious, and died on May 3rd, just eight weeks after being seen for the first time.

Post-mortem Examination.—Body emaciated; very little cerebral fluid; occipital lobe—and extending into lateral ventricle, to cerebellum and to tentorium—invaded by tumour. No tubercle found. Remarks:—(1) That it is often impossible to locate a lesion from symptoms; (2) Blisters on alternate sides of the scalp over the temporal region gave decided relief to headache; (3) The headache was not in the occipital region; (4) The peculiar periodic nature of the vomiting; (5) The total blindness and absence of hemianopsia.

Dr. THOMSON remarked upon the rapid diagnosis made by Dr. Connolly. He himself had seen the patient in January, when his eyesight appeared to be perfect. In February he had complained of constipation and "seediness," and under simple treatment seemed a few days later to have completely recovered.

Dr. LOCKHART GIBSON thought that the term "choked disc" was more applicable to the case, there being five dioptres of swelling; there was no hemianopsia.

The minutes of the last meeting were read and confirmed.

The PRESIDENT reported that it had been decided by the Council to present an address of welcome to their Royal Highnesses the Duke and Duchess of Cornwall and York, and that the framing of an address had been left in the hands of Dr. Thomson and the Secretary.

The SECRETARY read the address, which was approved of by the Branch. It was as follows:—

"May it please your Royal Highness,—The members of the Queensland Branch of the British Medical Association, representing the profession in Queensland, desire to participate heartily in the welcome accorded to you by the people of Queensland, and to express their loyalty and devotion to the Throne and the hope that you and your Royal Consort may for many years retain very pleasant memories of your visit to this portion of the dominions of King Edward the Seventh."

The PRESIDENT referred to the loss sustained by the profession in the death of Dr. Hunt, and the Secretary was instructed to write a letter of condolence to Mrs. Hunt.

A telegram warning members of the encroachments of the Manchester Unity Oddfellows was read from Dr. Hankins, Secretary of the N.S.W. Branch.

Dr. B. B. Ham and Dr. F. Macdonald were nominated for membership of the Branch, and Dr. MacEvoy (Beenleigh) unanimously elected.

Dr. THOMSON read a paper on "Streptococcus in Sputum," illustrated by microscopic specimens and a very excellent series of photomicrographs. (To appear in the next issue.)

Dr. HALFORD, for Dr. Henzell (Mackay) read "Notes of a case of Screw Worm." (See page 171.)

BALLARAT DISTRICT BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

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THE adjourned quarterly meeting was held on May 2nd, at 8.30 p.m.

Present: The President (Dr. G. Affleck Scott), Drs. Bennett, Champion, Cussen, Jordan, Mitchell, Morrison, Pinnock and Robert Scott. Apologies were received from Drs. Martin and Salmon.

Correspondence was received from the Secretary of the Victorian Branch, Drs. Newman and G. A. Syme.

The action of the President and Hon. Secretary was confirmed in the matter of presenting an Address to the Duke of Cornwall and York.

Dr. G. AFFLECK SCOTT read an interesting paper on "Strabismus" (reported at page 171), which was discussed by two or three of the members.

Dr. J. T. MITCHELL introduced a discussion on "The Treatment of Typhoid Fever."

THE TREATMENT OF TYPHOID FEVER.

BY JAMES T. MITCHELL, M.D. ABERD.; M.R.C.S. ENG., BALLARAT, VIC.

INTRODUCING A DISCUSSION AT THE BALLARAT DISTRICT BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

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IN introducing a discussion on the treatment of typhoid fever I feel oppressed by the magnitude of the theme, the diversity of opinion among the members of the medical profession, and the ever-varying phases of the disease, which render any systematic consideration of the subject almost impossible. My aim this evening will be to present a few of the many points for debate, and to take up what I feel to be some of the essential questions. I ask your indulgence for very much omitted which might have been profitably introduced had time at my disposal been extended. I propose to divide my remarks into three groups, viz.: (I.) Diet;

(II.) Drugs; (III.) Other therapeutic agents. This order is selected for convenience only, and not because I necessarily consider one group of greater value than another.

(I.) Diet in typhoid fever is a subject over which controversy rages all too frequently, and yet we are little or no nearer an intelligent solution of the question than we were twenty years ago. While some eminent practitioners will allow their patients to eat anything, from a grilled chop or a slice from a joint and potato downwards, others will cling religiously to a liquid diet. The bulk of the profession, however, seem to have arrived at a mean, and will only insist that everything in the dietary shall be of, at most, a pulpy consistence, easily disintegrated, free from woody or connective tissue fibres, grit, flakes, skins, seeds or other particles which might irritate the intestine or lodge in the depression of any ulcer.

A profitable question for discussion might be "Should the food be solid or liquid; or a judicious admixture of both?" The experience gained in the South African campaign has been most instructive. We have seen cases do well under conditions the most diverse, and in spite of a dietary which might well try the constitution of healthy men. Pet theories have been exploded, and medical dicta proved false by men who presumed to recover under circumstances and conditions hitherto considered impossible.

Milk, the sheet anchor of somepractitioners, is not so pre-eminently suitable as a food for adults to cause it to displace everything else. Apart from the fact that it frequently forms large, solid curds, hard to digest, and as irritating to the intestine as anything could be, it is a monotonous diet which presently becomes almost unendurable. Complex though its constitution be, it is not an adequate, nor even an economical food when used alone, and patients fed exclusively upon it are found in convalescence to be terribly emaciated. It is a common experience to find that, during a month's milk diet, a man will have lost two stone, or even more, in weight At the same time, as an adjunct, milk is a most valuable and useful food, especially if it be thoroughly mixed with an equal quantity of water so that the curd shall be granular

Broths of all kinds are fashionable in our dietary, and yet when we study the analysis of them we can only wonder how our patients do so well under them. Consisting as they do for the most part, of meat extractives, colouring matters and salts in weak watery solution, we seem often to esteem them more highly if they contain some quantity of that inert and, therefore, useless substance gelatin. Nitrogenous elements are almost absent, the albumins having been entangled as they coagulated among the muscle fibres, and strained away with these. Is it not time that we abandoned this form of broth as a food, and taught the cooks to make a meat infusion containing albumin in reasonable quantity, which will not only be pleasant to the taste, but also supply the body with nitrogenous substances to make up for the great waste coincident with the high temperature? It is well known to us that the temperature at which ordinary broths are simmered coagulates the albumins and, if the meat fibres are present, there is no means of separating them from the coagulated albumin. Therefore, to retain this material, it is necessary that the meat, finely minced, should he soaked in cool water, and the meat fibres strained away before the infusion is brought near the fire. Even then it is not advisable to "hard boil" the albumin. With a few minutes tuition any ordinary woman can make broths in this way with less trouble than by the old methods, and the resulting dish is even more tasty than of yore. Mutton, beef, veal, lamb, fowl, fish or indeed any meat may be treated thus in the proportion of one pound to one pint of water.

Milk and broths by no means exhaust the available dietary, for even among liquid foods may be numbered cocoa and chocolate. These make a most grateful change of flavour and are highly nutritious. They may be given in the ordinary form or set in moulds by the addition of a little gelatin. Albuminised water is a refreshing form of nutriment, which may be quickly made by shaking the white of an egg in half a tumblerful of cold water, and flavouring it in a score of ways. The great variety of forms in which this can be served up in milk, water, broth, etc., and the fact that the whites of half a dozen eggs may be taken with advantage in twenty-for hours, makes this a staple food for typhoid fever patients, easily prepared, always fresh, and digested with but little difficulty. Buttermilk and junket are forms of nourishment to be remembered when the palate is becoming tired of other foods. Extract of malt, for its own sake as well as for its digestive properties, may be given steadily throughout the course of the disease. Closely allied to this is barley water, freshly prepared day by day and strained through muslin, which makes a pleasant and wholesome drink.

Proprietary foods are bound to be brought into the discussion, and their name is legion. They are offered to us in the most specious advertisements, and pleaded for by many an agent who has succeeded in running us to earth. While we must accept the value of many of them under certain and special conditions, there is no douht in my mind that everything else being equal, a fresh food is preferable to a preserved one. There is nothing in the cookery for typhoid patients that cannot be accomplished by a woman of ordinary intelligence, and therefore I find but little use for artificial or other proprietary foods, except in the hottest summer weather.

It is, fortunately, quite unnecessary to limit the patient to liquids, for there are many soft pulpy foods which are within the reach of all, and which fulfil the requirement of being easily digestive, non-irritant and nutritious, leaving but a small quantity of *debris* to load the intestines. The one nearest to hand is bread, which, in moderate quantities and soaked either in the milk or the broth, is most easily borne by the stomach. A variation from this is absolutely plain sponge cake, free from any admixture of seed, currant or spice. This, when eaten dry, makes a grateful change from the liquids, and, if somewhat stale, cannot be swallowed until it is thoroughly mixed with saliva in a pulpy mass. Well-boiled, mealy potatoes, carefully mashed to a pulp and mixed with milk or gravy, give another change of diet easily manipulated in the alimentary canal. Then comes corn-flour or maizena, which may be made up in a variety of forms and flavoured with a variety of substances, so that it need never come up on two consecutive days in the same form. Well-stewed fruit of many kinds, carefully separated from skins and seeds, as well as some varieties of ripe fruit, guarded by the same precautions, may be given with advantage.

But the food question is one that has to be considered and reconsidered day by day, and almost hour by hour. Many symptoms and physical signs come to aid us in our decision, of which I can take notice of but few in the brief time allotted to me. With some of us the temperature is the main guide. While I am prepared to accept its dictates to some extent, I cannot consider it as the infallible or the only guide. Under many conditions I would not hesitate to continue a line of diet even with a rising temperature, believing as I do that many other factors beside the contents of the stomach conduce to high temperature. Lowering the diet will not lower the temperature. I cannot get away from the idea that nature knows what she is about in the matter of appetite, and when the patient has a good healthy appetite and the tongue is fairly clean, I cannot see my way to withold nourishment, even if the temperature be up a little. For, as I shall say later on, I do not regard a moderately high temperature as necessarily an evil thing. As a guide to what food should be given, a daily examination of the stools will probably be the most reliable. If we find substances coming through the body unchanged, they should certainly not be repeated, for a time at any rate. If there be any hæmorrhage from the bowel, or many or deep sloughs from the ulcers in the later stages, the utmost caution should be observed in supplying only the most nutritious forms of food, of the least possible bulk, and in the most easily absorbable combinations. It may even be necessary to abstain altogether from feeding by the mouth, and tide over the dangerous period by administering nutrient enemata. The friends of the patient are usually more difficult to satisfy in these cases than the patient himself, and, unless a reliable nurse is constantly present, they will outwit the physician and save the man from "starvation" by giving some food by the mouth.

Next in importance as an indication is the condition of the tongue. Should this organ be fairly clean, a variety of foods may be given, but should it be foul, inflamed, dry or brown, the utmost care and caution must be exercised. Distention of the abdomen distinctly contraindicates high feeding and, apart from its gravity in prognosis, it may well be observed as a guide to the diet list for the day. Coupling these two signs together, I have made it an almost hard and fast rule that, when the tongue is dry and brown and the abdomen at all distended, food shall be absolutely withheld for twenty-four or even thirty-six hours, and nothing whatever administered except sterilized water, in small quantities, not too frequently. It is probable that perforation is sometimes induced by an overloaded intestine, which might have been prevented had these indications been closely observed. The earliest signs of overloading should be immediately reported by the nurse, and prompt measures taken to avert this fatal disaster. The unloading may fairly be done by means of suitable purgatives, which will be discussed later.

Water is frequently forgotten in our treatment, unless it be adulterated with some substance to give it a flavour, or to take the rawness off, as it is called. Nothing is more refreshing to a fever-stricken patient than a free draught of cool water, either rain or boiled. Being quickly and easily absorbed, it gives little or no work to the stomach, and it is useful to flush the kidneys, bowels and skin. It should not be taken in sips constantly, for this creates unquenchable thirst. When given, it should be a full drink, as much as the patient cares to take, and then absolutely withheld for at least two hours before a repetition. Ice has been much vaunted, either to be swallowed or quietly sucked. In practice, we find nothing that provokes thirst more than this, and on that account I have abandoned its use, unless there has seemed some special indication for it.

II.—It is often stated by the general public, that nursing is the main thing in typhoid fever, and drugs of but little service, the doctor, thus, being considered a superior sort of nurse, who comes at intervals to consult with and advise the resident nurse. For this idea the medical profession is itself responsible, as the popular statement is but an echo of the opinion of some of our own colleagues. It has been my duty, as well as pleasure, to have a good deal to do with the training of nurses for several years past, so you will readily believe that I do not under-estimate the value of good nursing. But our help would be poor indeed, could we not, in the vast field of therapeutics, find some specific means for alleviating the pain, soothing the unrest, relieving the severity of symptoms, and steering the patient safely through the dangerous course of this disease with its many complications. The drugs which have been used are many and various, and it would be tedious even to enumerate them. The simpler way will be to consider them in groups, as they would naturally occur to one's mind.

First then, let us look at antipyretics which, a few years ago, were much more in vogue than they are to-day. There is, I think, a growing feeling that high temperature is not, of itself, the greatest evil and that, simply lowering the temperature without accomplishing anything else, does but very little good. In its ultimate course, duration and results, a case running a mean daily temperature of 101° F. has little, if any, advantage over another in which the mean temperature is 102°.6. Frequently we see cases which have run an exceedingly mild course result in some complication or sequela just as troublesome and just as tedious as happens in one running a much more severe course. I have, therefore, grown to feel that, within reasonable limits, temperature may be allowed a somewhat wide margin without causing anxiety. The ratio of pulse and temperature is of much more value in prognosis than that of temperature alone. Hyperpyrexia must, of course, be treated on its own merits as it supervenes.

But whatever difference of opinion may exist with regard to antipyretics, there is but little with regard to antiseptics. The trend of modern treatment is certainly in the direction of the administration of antiseptics internally, and, in my experience, this is the greatest advance that has been made in combating the disease. The exact form of drug seems to be of but little moment; early, constant, and persistent administration throughout the course of the disease being undoubtedly of the greatest value and importance. It may be objected that some of these drugs are also antipyretic in action to some extent, but they are certainly used for their primary and not for their less marked action.

Purgatives are the subject of much controversy, some considering them a positive danger, and others viewing them in the opposite light. I incline to the latter class and feel strongly that, unless the bowels are opened early and freely, and kept open by mild purgation throughout, the chances of an early and uninterrupted recovery will be much lessened. Nothing can give greater distress, or provide a more suitable nidus for the typhoid bacillus than masses of fæcal matter, more particularly if these are stationary or but slowly moving down the intestinal canal. In addition to the germs and their toxic secretions, there is the absorption of fæcal gases themselves by no means innoxious. And, further, hardened masses moving along the intestinal canal, should they pass over ulcers, must of necessity do harm by mechanical pressure and abrasion. Of the opposite condition, diarrhœa, many cases are induced by irritating substances within the bowel which will cease when the cause is removed by a suitable purgative. No doubt there are many cases of diarrhœa not due to this cause at all and they must be treated accordingly. Diarrhœa is decidedly more common in milk-feeding than when the patient is put upon a more varied and generous diet, but it has lost the place it once held as one of the constant and well-marked symptoms of typhoid fever. Whether this be due to a change in the nature of the disease or of the treatment is a question.

Sedatives and hypnotics are often called for at different stages of the disease. Much may be done to soothe and relieve the patient by bathings, purgatives, etc., and yet one rarely goes through a well marked case without being compelled to have resourse to some soothing drug. In these cases the simplest medication is the best, and we, by degrees, learn to avoid complex and complicated proprietary concoctions, whose chief virtue seems to be the claim that almost every drug in this class is skilfully introduced into the draught. The exact need should be carefully noted, and a drug selected which covers that need, and as little else as can be.

Tonics are of undoubted value, frequently being of prime necessity to hold the patient up in the depressing stages of the disease. It may be a question of individual preference as to whether these should be given by the mouth or hypodermically. Considering the condition of the alimentary tract and the need for conserving its digestive and absorbent powers to the utmost, it seems worth while to introduce these hypodermically. Very fortunately our hypodermic armamentarium contains a fair variety of these useful drugs, so that the selection of a suitable one is by no means a difficult task. This naturally brings us to the question of the necessity for the use of stimulants. In my student days it was the custom to give alcohol in some form or other, in tolerably large doses in every case. This is by no means necessary nor is it advisable, and yet I find a large number of cases in which I should feel very uncomfortable unless some stimulant were administered. My practice is not to give any except it is distinctly called for, but should it be necessary not to play with it in trivial quantities. It should be given in clearly-defined doses at stated hours like any other drug and stopped when its work is done. So given it would avoid the reproach often levelled at our profession of creating an alcohol habit. The form in which it is exhibited should vary according to the taste and habit of the patient, as well as the nature and requirements of the case. From time to time we hear of many series of cases being treated absolutely without alcohol, and it is claimed by those who advocate this method that their results are eminently satisfactory.

Saline injections should not be overlooked, both for their stimulating effect and also for their value in diluting the toxins in the blood, and assisting in their elimination. The happiest results have frequently followed the use of intravenous or subcutaneous injections in desperately bad cases, where it seemed impossible to give relief in any other way. In hæmorrhages, especially, is the value of this form of treatment seen, and there is nothing we can do which will compare with it in staying the bleeding and raising the blood pressure. For subcutaneous use, from one to two pints of normal saline solution may be injected at intervals of twelve hours.

III.—Of other therapeutic agents, rest in the recumbent position is probably the greatest essential in the treatment of typhoid fever. Of this I feel the truth so strongly that, if asked what would be the last therapeutic agent I would part with in the treatment of this disease, I would answer, "Rest." For, whatever else may be done or left undone, unless this can be fairly well maintained, the case does but poorly; and, on the other hand, when rest is absolutely assured we get good results in the presence or absence of any of the other methods and adjuncts to treatment. Those cases do best, as a rule, which are never moved from the bed into which they first go, even though the nursing and other attendance and surroundings be less favourable than those to which they might be moved. Admitting that, with ambulance vans and stretchers, the danger of movement is very much diminished, still the less of it the better, and the more perfect the rest, the greater the advantage to the patient. I have seen men sat up in bed regularly to take their meals and so forth, but I always discourage this and urge that an absolutely recumbent position be maintained, even during the making of the bed.

Throughout the course of the disease it is perfectly possible to keep the head upon the pillow from first to last, changing from side to side, or from recumbent to prone positions, to relieve the monotony of lying down for so long a period. The first two or three days are the hardest to bear, for the patient soon drops into the groove and makes up his mind to go quietly through with it.

Of the cold bath treatment I have no personal experience never having ventured on a method which seems to me so unpleasant to the patient and troublesome to the attendants. If I pass somewhat lightly over this point it is because I wish to give some one who has experience of it opportunity to enlighten us, not because I am unaware of what has been claimed for it. In the hands of some of our brethren it has proved a great boon, and their statistics bear out their statements as to its efficacy. It requires some experience, considerable judgment on the part of the attendants and special apparatus which is beyond the reach of the poor in their own homes.

Sponging the whole body with tepid, or even hot water is most useful and comforting. It is my custom to order that the whole body be sponged night and morning at least, and in addition, whenever the temperature rises above 103°. Nothing soothes and refreshes, or gives so much comfort and restfulness. Many a sleeping draught has been avoided by timely sponging, to the great advantage of the patient's general condition. Closely allied to this is the abdominal pack, an article of faith with some among us. In my hands it has often given comfort, but I seldom use it unless symptoms of abdominal tenderness or distention appears. In these cases I frequently combine some sedative, such as belladonna or laudanum, or some counterirritant, as turpentine.

Every member present took part in what proved to be an animated and instructive discussion.

Dr. **Pinnock** viewed high feeding with great distrust, and questioned the results of this dietary. He did not believe in pulpy foods, especially those containing starch. He gave stimulants in all cases at end of second week, and used the abdominal pack in all cases until the temperature fell. He agreed with the opener that the mean daily temperature was not the index of the severity of the case. He found repeated small doses of calomel very useful in the earliest stages of the disease. Extract of cocoa was valuable in cases where there was much emaciation and depression in convalescence with a normal or subnormal temperature.

Dr. R. **Scott** objected to starchy foods always. He used milk diluted with soda water, etc., and did not find much trouble from curds. He agreed with the condemnation of ordinary broths, and favoured meat infusions. Sponging or packing were far preferable to antipyretics, which he rarely used, but stimulants found a place in many cases. He pointed out what he called "famine fever," where in convalescence the temperature kept up and was only reduced by putting the patient on a more generous diet. He found occasional relapses in convalescence when food began to be given in solid form.

Dr. **Morrison** upheld the theory of rest for the stomach and intestines. He fed the patients exclusively on milk, meat infusions and albuminised water, strictly avoiding purgatives except on the first day. The bowels could be opened satisfactorily by enemata. He gave less and less stimulants as he got older, and always witheld them from children. As to drugs, his treatment was purely expectant.

Dr. **Jordan** considered liquid diet the only possible one, and while he ordered sponging, thought that antipyretics were of very great value in averting complications.

Dr. **Champion** favoured a strictly liquid diet until convalescence was well advanced and temperature was normal for at least a week. He thought enemata safer than purgatives except in the earliest stages. Antipyretic drugs were to be avoided. He considered cold baths impossible in hospital unless the nursing staff were greatly augmented. In the case of children, however, the difficulty was not so great.

Dr. **Cussen** hesitated always about using solid foods of any kind, nor did he order stimulants as a routine, always waiting for indications as to their necessity. He avoided antipyretics as quite useless, finding that packs and sponging did all that was needed in this direction.

Dr. **Bennett** pointed out that a sudden rise of temperature after the third week was usually followed by the passage of a slough in twenty-four to forty-eight hours, the temperature falling gradually for two or three days afterwards. He wondered if the rise was caused by toxins being absorbed through the raw surfaces from which the sloughs had been detached. He had often seen rigors and increased temperature follow the use of antipyretics.

Dr. **Mitchell**, replying, said that taka diastase had robbed starch of its terrors and made its use possible in almost every case. As to relapses in convalescence after solid food had been given, were there not similar relapses where solid food had not been given? Was not a relapse frequently another infection apart altogether from the food? He thought the enema very inferior to purgatives from the fact that it emptied the lower bowel only, and scarcely at all affected the upper. He thanked the members for their courteous and candid discussion of the subject.

Notices of motion:—

Dr. **Pinnock** reported that the *post-mortem* roster was very imperfectly adhered to, and gave notice of motion that the Deputy-Coroners should be waited upon and an improvement advocated.

By Dr. **Morrison**: "That this Society wait upon the City Council to urge that some steps be taken to prevent the unnecessary and continued pollution of the lake."

By the Hon. Secretary: "That By-law No. 10 be amended so as to more clearly define the business of ordinary quarterly meetings."

Dr. **Bennett** exhibited the following specimens:—(1) Ascaris lumbricoides from a convalescent diphtheritic, which caused a rise of temperature to 102° before it was passed; (2) Parovarian cyst, with cystic ovaries; (3) Exfoliation of dental and palate processes of upper jaw; (4) Large bursa from ischial tuberosity; (5) Ten vesical calculi removed by suprapubic incision from a young man.

The meeting then closed.

VICTORIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

The monthly meeting of the Victorian Branch of the British Medical Association was held in the Austral Salon at 8.30 p.m. on April 17th, 1901.

PATHOLOGIC CONDITIONS IN CASES OF SUMMER DIARRHŒA.

By T. R. H. Willis, M.B., Ch.B. Melbourne.

In opening the discussion on the pathology and treatment of infantile diarrhœa, Dr. **Willis** first referred briefly to the causes, pointing out that food, unsuitable or in excess, was the usual cause when combined with some adjuvant such as excessive heat. He drew attention to the similarity in the incidence, symptoms, and pathological conditions of typhoid in the adult and ileo-colitis in the infant. The food might be actively poisonous from the presence of saprophytic or of definite pathogenic bacilli, and their toxins or passively poisonous form remaining undigested and undergoing decay in the intestinal canal (perhaps from antecedent hyperæmia), and so providing nutriment for the development of bacilli. He then gave a short *resumé* of the pathological and microscopical appearances in the different stages of infantile diarrhœa, and said that the different diseases classified under the heading of "infantile diarrhœa" were probably only developments in the one disease, except perhaps cholera infantum, which was apparently an acute toxæmia, with symptoms such as one would expect from the decomposition of albumins. He said that the principal bacillus found was the bacillus coli communis, which was not, of course, pathognomonic of diarrhœa; then bacilli of various kinds were found in the slighter lesions, or the stages of tumefaction and infiltration, and streptococci in the deeper lesions; and then in some cases the amœba coli had been found. With respect to treatment he pointed out that the indications were to get rid of the bacillary development and its products, to prevent further toxic absorption and to relieve pain, and to keep up the patient's strength. The first indication is fulfilled by washing out the stomach and colon (if necessary with medicated solutions), by change of food with the object of starving out the bacilli, and by purgatives, the principal of which are calomel and castor oil. The second object might be accomplished by the use of intestinal disinfectants such as carbolic acid, reosorsin, resorcin, salol, etc., and opium. Injection hypodermically with minute quantities of morphia and atropine gave satisfactory results; and he always used astringents, generally some derivative of tannin, or, when that failed, mineral acids or salts of some of the metals. As reason for using tannin, he stated that tannin combined with tox-albumins as it did with alkaloids to form an insoluble inert compound. The third object is attained by rest, stimulants, proper food, and, if necessary, saline injections. He considered suitable feeding the crux of the whole treatment when the urgent symptoms had been relieved. He pointed out that the child required proteids for tissue growth, fat and carbo-hydrates for heat-production and as a source of muscular energy, and various salts, such as those of lime, potassium, phosphorus, soda, and iron; and that we have to devise foods that will contain these constituents and also be assimilated by the patient. He referred at some length to milk—sterilised, pasteurised, peptonised, and condensed—meat foods, farinaceous foods, and patent foods, emphasising the well-known fact that all the patent preparations show a deficiency of fat, and either too much soluble carbo-hydrate or a quantity of insoluble carbo-hydrate. Finally he drew attention to the necessity at times for gavage, and the advantages derived from it when food taken by the mouth was rejected.

The **PRESIDENT** (Dr. NIELD) expressed his gratification at the lucid, sensible, and useful paper given by Dr. Willis. He (Dr. Nield) had made *post-mortem* examinations on about four hundred children during the last four or five years, and had come to the conclusion that the boarding-out system was a most deficient one, and a great many of the nurses who took these children were the last that the Almighty ever intended to look after the nursing of young children. They were ignorant and would not be taught; and by neglect, ignorance and callousness were the cause of many of these deaths in early infancy. He found that one cow's milk was the most usual form of diet given to these children; but the milk was often not good, and frequently kept in bad places during the hot weather. Other times he found artificial foods were given, and these very frequently were given alone and were not sufficient by themselves to support life. So-called beef juice he had found in the stomachs of babies forming a sticky, filthy mass, which was nothing more nor less than minced meat in a state of decomposition. In order that proper and scientific care should be taken of this class of infant life, Dr. Neild had come to the conclusion that a properly constructed foundling hospital was the best method to be adopted.

Dr. **CUSCADEN** had seen a good many cases of summer diarrhœa for many years past, and thought Dr. Willis had embraced everything of value on the subject in a paper which necessarily had to be curtailed. He had found bismuth act very well in many cases, also resorcin and liq. hydrarg. perchlor. For irrigation of the bowel he had used saline solution with much success. This latter treatment, viz., irrigation, was difficult to manage outside hospitals on account of the time it took up. In the dieting of such cases he found milk the most useful, but when it did not agree he followed out a line similar to that which Dr. Willis had suggested. Notwithstanding this, there were cases where children did not develop, and no food seemed to improve them. He would like Dr. Willis' opinion on the best method of treatment of such cases.

Dr. **BRYANT** agreed with Dr. Willis thoroughly in his treatment of summer diarrhœa. He always stopped whatever food was being given, be it milk, artificial foods, or beef juices, for twenty-four hours, and put them on boiled water, barley water, and weak brandy and water if retained. Hot whisky or brandy packs over the abdomen to relieve pain, and irrigation of the bowel with boracic acid ʒss. to ʒi., pulv. opii. gr. $\frac{1}{16}$ to $\frac{1}{20}$, and acid tannic gr. i. to gr. iii. (according to age) dissolved in Oi. of warm water or more. After the acute symptoms had passed, then various additions were gradually made to the diet list very much in the order that Dr. Willis recommended, remembering the main ingredients that were necessary for the sustenance of infant life. Often after one irrigation he had found great improvement in a case. Of course this treatment necessitated a lot of trouble and special care; this he had managed by sending them to a trained nurse, who did the irrigation thoroughly herself, and saw that packs, etc., were properly applied for a small fee. The internal treatment by drugs was purely a matter of habit, as each man had his own particular fad, and most of the drugs were for the same purpose.

Dr. **BLACK** agreed with Drs. Cuscaden and Bryant about the great value of irrigation of the bowels, and he usually set apart a special time in the day for such cases, and washed them out with plain warm water at his own surgery. He found no difficulty in passing the tube. He did not believe in saline injection in these cases on account of the dangerous symptoms sometimes set up, stimulants were an urgent necessity, and warm stimulating packs made up with the cheaper kind of spirits were very useful. He found many idiosyncracies in children with regard to dieting, and a medical man had often a very difficult task to find out what best suited each particular case. He used bismuth internally to whitewash the stomach and alimentary canal, and cold starch injections per rectum greatly assisted him in these cases.

Dr. **MCCANSH** said that Dr. Willis had really voiced everyone's treatment. He had found it was difficult to keep infants clean, as the nurses would not change the napkins as frequently as they should. He believed in plenty of sunshine and open air for these cases, and irrigation properly supervised at least once a day. He had used a 1 in 6,000 solution of hyd. perchlor. and found it very beneficial, and never had any sign of mercurialism, but all the same he preferred plain boiled water now for irrigation. A soft tube he found oftened buckled, and he now uses a stiffer one with much more ease. He has not thrown over the use of intestinal antisepsis internally. His faith in liq. hydrarg. perchlor. the last two seasons had been rather damped owing to its causing symptoms of irritation and conjestion about the orifice of the gullet, and a difficulty in swallowing. Whether this was due to bad preparation of the drug or climatic changes he could not say. He found antiseptics destroyed the fœtor of the motions, and this was a decided benefit to the attendants. Concerning the pathology of this disease, he thought it was a great pity more *post-mortem* examinations were not made on fatal cases; thus the condition of the bowel would be more closely studied, and more might be learnt about the exact changes that take place in their structure.

Dr. **VANCE** referred briefly to the heat theory propounded by Moore of Dublin. His treatment was hydrag. subchlor. in small doses, and rest to the stomach. Irrigation of stomach and bowels, and as to internal disinfection of the bowel he did not care much for it. He believed in spoon-feeding these infants so as to do away with the chance of neglected feeding bottles. Whisky compress for pain, and cod liver oil compress to supply fat. Regarding patent foods these were useful in conjunction with other foods, and as for one cow's milk, that popular fad was quite wrong. Supposing that one cow was not in good health, the milk from it would greatly add to the danger of rearing the child; and so he always ordered mixed milks to be used in all such cases.

Dr. **WILLIS** replied that the subject he had brought before them was so extensive that he had been quite unable to touch upon many things in the short time at his disposal. In cases that did not develop, such as Dr. Cuscaden had mentioned, he thought the following line of treatment might be beneficial: (1st) Malted foods; (2nd) Fat in some form, cod liver oil for choice; (3rd) Proteids, either beef juice (raw) or egg albumen; (4th) Peptonoids, and perhaps a little whey; (5th) Astringents in some form in later stages of diarrhœa. He had found tannigen a most useful astringent.

SOUTH AUSTRALIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

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THE monthly meeting was held at the University on 25th April, 1901, at 8 p.m. The President was in the chair. Present: Drs. Scott, F. Magarey, Cudmore, Smeaton, Angas Johnson, H. Russell, Gault, Hayward, Lendon, Swift, A. Wigg, Powell, Good, G. Hayward Evans, J. C. Verco, Corbin, Roseby, Plummer, Fischer, W. Giles, Marten, Symons, T. K. Hamilton, J. A. G. Hamilton, Cavenagh-Mainwaring, and the hon. sec. (J. B. Gunson). Visitors: Drs. Robertson and S. Verco.

EXHIBITS.

Dr. J. A. G. **HAMILTON** showed:—

I. Two *ovaries* which he had removed from a woman aged 34. They presented a condition he had not met with before. The ovary much resembled, in a modified form, the specimens of carcinoma of ovary which Dr. Cavenagh-Mainwaring had just shown. The disease in these ovaries was probably adenomata, and had not become as yet malignant. There was no invasion of surrounding structures.

II. A *uterine myoma* weighing 4½ lbs. Hysterectomy (abdominal) was performed three weeks ago by Watson's method. Patient has made a good recovery.

Dr. T. K. **HAMILTON** exhibited a fibroma removed from the right vocal cord. The growth was more pedunculated than such growths usually are when found in the interior of the larynx.

Dr. T. K. **HAMILTON** exhibited the following cases:

No. I.—*Saddle-shaped Nose from injury, remedied by permanent insertion of a Silver-gilt Plate.*

W.C., aged 15 years, got his nose injured by falling on a horizontal bar on September 27th, 1900. This resulted in a bilateral hæmatoma and abscess of the septum, which was opened and drained. Three months after the operation the deformity had become very marked, and there was a deep sulcus of the bridge between the nasal bones and the tip. This was remedied by the introduction of a silver-gilt plate under the skin, by a modification of the method originally recommended by the late Dr. S. K. Ellison of this city.* The plate, perforated with numerous small openings, measured 2 c.m. long, 0·50D c.m. wide, and 1·75 c.m. across the lateral supports, and had a small elevation of its dorsum at the point of maximum depression of the bridge. The result is perfect. A point of clinical interest is illustrated by the case, and it is this: the deformity resulting from the original injury and septal abscess was at first almost nil, but during the next three months a progressive and marked sinking of the bridge took place. This sinking is now recognised to be due to some interstitial changes in the cartilage and other structures of the septum, which by setting going a process of contraction causes the drawing down of the bridge. I have recently had a similar case in a child, aged six years, in which the parents wrongly blamed the surgeon who treated the septal abscess for causing the subsequent deformity of the bridge. This deformity apparently sometimes does not occur for some time after the injury, as shown by a case exhibited before the London Laryngological Society in November of last year by Mr. Spencer. In the light of these cases it is well to remember that deformity may follow a bilateral hæmatoma and abscess of the septum in young subjects, and that it is, therefore, prudent to warn the friends accordingly.

No. II.—*Syphilitic Destruction of the whole Nose, with Plastic and other Operations for its Restoration.*

H.E., aged 45. Seen first in January, 1899. History of having had syphilis twenty-five years ago, and seven years ago destructive ulceration of both exterior and interior of the nose. The whole bony framework was destroyed, and the skin of and around the nose was deeply scarred and puckered. The entrance of the nostrils were reduced to a very small size, and the tip was almost flat with the face. The columna was the only part of the septum left, and the inferior turbinateds the only representatives of the interior structures. The uvula had sloughed, and there were deep cicatrices of the post-pharyngeal wall. There was also marked ectropion of the lower lid of the right eye. (*Photograph exhibited.*)

After a few weeks' course of massaging twice daily to soften the cicatricial tissue of and around the nose, a Wolfe's flap transplantation was done for the ectropion, and soon afterwards a silver-gilt plate was introduced under the skin of the bridge to build the foundation of a framework. The next procedure was to form a new columna. This was done by cutting a flap 1 c.m. wide out of the whole thickness of the centre of the upper lip. The skin and hairy surface was then cut off, and this was attached to the original, but now somewhat raised columna whose surface had been also previously denuded of skin. The final part of the building up process was then postponed for some months to allow of the parts becoming consolidated, and three months ago flaps were transplanted from the forehead to make the new nose. This part of the operation was conducted on pretty much the same lines as cases recently recorded by Dr. Moore, of Melbourne.† Two flaps were dissected up from the forehead, and their raw surfaces, as well as the raw surface of the forehead, were Thiersch-grafted from the arm. After three weeks the flaps were attached to the alae and sides of the nose, and to each other in the centre, and pared down where it was found necessary to make the sides of the nose symmetrical, and last of all the columna was joined to the extremity of the united flaps to complete the process of repair.

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* *Lancet*, February, 1894.

† *Intercolonial Medical Journal of Australasia.* Vol. IV., p. 306.

No. III.—*Syphilitic Ulceration of the Throat, followed by almost complete Synechiæ between Soft-palate and Post-pharyngeal Wall and Dense Adhesions lower down in the Pharynx.*

J.B., aged 39. Acquired syphilis some six years ago. Has had five children since then, three premature births, and only one, the youngest, now alive. When first seen, three months ago, she was in a truly pitiable condition. The opening into the naso-pharynx was only sufficient to admit a probe, and the uvula had become detached by ulceration, and was adherent to the posterior wall in the middle line. On the right side there was a thick sickle-shaped band of cicatricial tissue uniting the back of the tongue to the posterior wall. This just cleared the epiglottis, and with similar but less dense adhesions on the other side, made the opening through this portion of the pharynx so narrow that it was with very great difficulty a view of the interior of the larynx could be obtained. The epiglottis was swollen and thickened, and there was a mass of soft-looking tissue seen springing from the left ventricular band and cord. This mass still further reduced the breathing space. She had constant and profuse flow of saliva with enlargement of the submaxillary glands with the surrounding lymphatics, and she was obliged to carry a wide-mouthed bottle about with her to expectorate into. The prominent symptoms were dyspnæa, dysphonia, some dysphagia salivation, and her face wore an extremely anxious look. After three days' treatment with the local application of sublimated calomel and K I internally and salivation ceased, and her other symptoms gradually became less severe. Some weeks subsequently, in order to restore her nasal respiration, the dense palato-pharyngeal synechiæ were thoroughly divided and a vulcanite obturator attached at right angles to a palate plate made on the principle suggested by Kollbrunner, of Strasbourg. Her present condition is extremely satisfactory. She can breathe well through the nose, and the dyspnæa and other symptoms have almost disappeared. The right side of the larynx has also assumed a fairly normal appearance, and the cicatricial contraction of the lower part of the pharynx has not increased.

No. IV.—*Ocular Paralyses with a Probable Syphilitic Origin.*

M.A.R., aged 49, female. Has an indefinite history of inherited syphilis without having had any symptoms of such earlier in life. Twelve months ago had diplopia for first time. Seen first on March 2nd. Three weeks previous to this date had a partial ptosis on right side. This lasted only a few days, and three days ago a complete ptosis on left side came on. When first examined she was found to have complete paralysis of the right external rectus. No. 6 prism correcting the diplopia and a partial paralysis of the inferior rectus on this side, also complete ptosis of the left eye. Her vision, accommodation, and fields were normal; the pupils equal, and responded to all stimuli; urine and reflexes also normal. Under treatment with biniodide of mercury she has improved a little, and the right inferior rectus has quite recovered, but the left inferior muscle is now similarly affected. I am indebted to our President for kindly telling me of her family history, which points to a probable specific taint in her father. If, however, these paralyses have a syphilitic origin it is strange that such tertiary manifestations should show themselves in an otherwise healthy woman after middle life whose history has hitherto been wanting in any symptoms of this kind pointing to inherited disease, and, again, on the other hand, the absence of any other signs of cerebral disease to account for the paralyses would make the hypothesis referred to the most feasible.

No. V.—*Amaurosis following an Explosion of Dynamite in a Mine.*

C.B., male, aged 43. On February 6th first seen, and the following history given: Six days ago, when working underground in one of the Broken Hill mines, his candle went out just when he was preparing to leave the place where several dynamite shots were put in. Being unable to see his way to leave the spot, he threw himself on his face and the shots went off. He lost consciousness immediately, and remained unconscious for one hour and a half. On waking up he felt very shaky and confused, could not walk alone, and could not see. After a short time his sight returned, but apparently not perfectly. He was able to return to work, however, on his shift some twelve hours after the accident and worked for the next three days. During this time he was very shaky, his memory not good, and his mates noticed that he looked very pale. On the third day a flash of light suddenly came before his eyes, he became nearly blind, and could only see half of the objects before him. His condition when seen on the fifth day after the accident was as follows:—Photophobia, vision = h.m. only, same in both eyes. The exterior of the eyes apparently normal; pupils equal, and act every way; media clear, fundi, except for pronounced distention of the retinal veins, normal; pain sometimes very severe in the head, especially in the occipital region, giddiness and mental confusion, memory defective and gait unsteady. The application of the artificial leech to each temple and hot water spray, 120° Fahr., to the eyeballs relieved his pain. A mixture containing potassii. iodidi. gr. v. liq. hydrarg. perchlo. gr. iii. was commenced thrice daily. After this treatment for a few days his vision improved so that he could see a watch held before his eyes, but this improvement did not last long, and at the end of the third week his vision seemed to go away entirely and rather suddenly. The constant current was then applied to the eyes twice daily for some time. Previous to the accident he had been in his usual health, but twelve months ago he had been badly "leaded," and had convulsions at the time, but the vision had not been at any time impaired; no history of syphilis. Since the day in which he seemed to lose all vision, except for P.L., his condition has remained unaltered. He has had at times very severe pains in the head, which nothing seems to relieve so promptly and effectively as the application of the leech and the exhibition of bromides. The ophthalmological appearances are also unaltered. The veins are still distended, the arteries are fairly normal in size, the discs a good colour and margins well defined. These latter have never been swollen at any time. The pupils are equal, and act to light and consensually. He still has some unsteadiness of gait, and sometimes feels as if he would fall down if he were not to seize hold of some support. His memory is defective, and he cannot think quickly. The prognosis as to vision from the course the case has taken during the three months he has been under observation, and from the records of similar cases, seems to be unfavourable. The authorities who have recorded cases attribute the loss of vision to an acute retro-bulbar and interstitial neuritis through a toxic agent that is readily taken up by the blood, and which, along with the concussion, exerts a highly destructive influence not only on the red blood cells, but also upon the nerve cells presiding over the highest centres of consciousness, memory and sight, as well as the bundles going to make up the optic tract and nerve itself. In the discharge of dynamite a number of gases whose chemical reaction is not always the same, are generated. Carbonic oxide gas through imperfect oxidation is formed, and is changed into the dioxide. M. Schnitz reports two cases of poisoning by carbonic oxide gas after explosions in the *Annales D'Oculisque*, and Dr. Brose (U.S.A.)[*] records two cases of blindness following an explosion of dynamite in a well. These two latter cases are very similar to the one under review. In both there were symptoms affecting the general nervous system as well as loss of sight, and in the more severe case of the two the vision when the last note was made was still restricted to counting one or two fingers just in front of either eye.

Dr. **Fischer** showed—

(1.) A second case of otitic septic sinus thrombosis, where he had performed the radical operation seven weeks previously, clearing the mastoid antrum of fœtid pus and granulations, and subsequently opened the lateral sinus, and thus giving exit to foul smelling liquid pus. Dr. Morgan ligated the internal jugular vein in two places, excising a small intermediate portion. The boy is now perfectly well.

(2.) A young man, aged 28, from whose eye a piece of steel weighing ·313 grains, and lying on the posterior part of the retina, internal to and just below the optic papilla, had been removed by the electro magnet. The foreign body entered the eye through the inferior portion of the sclerotic, between the anterior edge of the corpus ciliare and free margin of the lens. In consultation with Dr. Symons it was decided to attempt its removal by applying the electrode to the outside of the eye, then to the lips of the external wound itself. A special electrode was then made and inserted as far as possible along the route taken by the foreign body through the vitreous to the posterior portion of retina. On withdrawing the electrode the steel was found attached. Strict antisepsis was employed, practically no reaction followed, and patient has now splendid vision. Opthalmoscopically, there is a small patch of retina choroiditis where the foreign body was located, and a small detachment of the retina just below it.

(3.) Among foreign bodies removed from the nose, a wooden top from a toy engine which had been in the nose of a child of about 5 years of age for three years, and had caused a fœtid discharge from the nostril for that period. The foreign substance was embedded in the usual phosphatic salt.

(4.) A solid brass ring, which he had removed from the penis of a youth of 24 years of age. Case of urgency. The ring had been on eight or nine hours, and the distal portion of the penis was enormously distended and black, and dark serous exudation was escaping in many places. The patient was suffering greatly. Ring was filed through after some difficulty.

Minutes of last meeting were taken as read.

A communication was received from Sydney Branch *re* Medical Institute.

PAPERS.

Dr. **Marten** read his paper on a case of "Hour-glass Constriction of Stomach." (See p. 161.)

Remarks on Dr. Marten's Paper.

Dr. J. A. G. **Hamilton** complimented Dr. Marten upon his valuable and interesting paper. The condition as shown by Dr. Marten was an uncommon one so perhaps the members present were not prepared to discuss it. Personally, he had not met with a similar condition. A few months ago, he had reported a case on which he had operated for non-malignant hour-glass contraction of stomach. A few days ago, he had opened an abdomen in a woman who had suffered from stomach troubles for 20 years. Lately there had been almost constant vomiting with great wasting. There were extensive adhesions to liver. The contraction in this case was caused by a large malignant mass in the anterior wall of stomach. In handling the stomach the anterior wall where the growth had invaded it gave way, and a rent about an inch long was found, through which the contents of stomach escaped. The condition of patient did not justify an attempt at anastomosis. The edges of the rent in stomach wall could not be brought together, as the stitches cut through the malignant mass; so a piece of omentum was brought up and stitched over rent. The abdominal wall was brought together, leaving a gauze drain running down to rent in stomach. The letting go of adhesion to liver has evidently taken a kink out of the stomach, as the patient is now able to take a fair amount of liquid nourishment without pain, and has not vomited since operation.

Drs. **Hayward**, **Swift**, and **Corben** then read papers on "Foreign Bodies in the Respiratory Tract." (See pages 166 and 167.)

An interesting discussion followed, in which most members joined.

Dr. **Lendon** felt interested in the cases narrated, because three years ago he had read a paper before the Branch dealing with the subject of foreign bodies in the bronchi (published in the *Intercolonial Medical Journal of Australasia*, March, 1898). In this paper he had described the case of a boy, in whose bronchus a stud had been impacted for over a year, and had set up septic bronchi-ectasis, and he had given an appendix with a list of all the previously reported Australian cases. His own case was the first, he believed, in which a deliberate attempt had been made to extract such a foreign body through the chest wall; the operation failed, but the stud was coughed up soon after the child left the operating table. He hoped shortly to publish a second case in which a grass seed was inspired by a baby, and expelled after an interval of three or four months; soon after its expulsion the signs of a fœtid bronchitis were noticed, and after as many years had elapsed the parents consented to an operation; a free communication was established with the pulmonary abscess, and drainage persisted in, with an excellent result, although no remnant of a foreign body could be found. With regard to Dr. Hayward's case, he thought that the empyema was the result of perforation from the pulmonary abscess directly into the pleural cavity, and not *via* the bronchus and mediastinum (although no actual perforation was necessary to set up septic empyema). He did not think there was much advantage in performing tracheotomy where the foreign body appeared to be impacted in the bronchus; these cases were quite different from those in which the foreign body moved freely up and down from the bronchi into the trachea.

Dr. **Fischer** mentioned cases of almond shell in trachea, of pepper-tree seed with pin stuck through which had been used as a dart and inspirer, large fish bone which was impacted in the glottis, and melon seeds.

Dr. **Hayward** did not think that tracheotomy should be performed as a matter of routine in every case of a foreign body in the respiratory tract. When the body was smooth, such as coin or fruit stone, or in cases where there was evidence that it was movable, there should be no hesitation in performing the operation. In those cases when a foreign body had resulted in an abscess of the lung, and the situation of the abscess could be definitely located, surgical measures would be justifiable, but when the foreign body was rough and irregular, probably impacted, and the location indefinite, the patient would most likely have a better chance of recovery if expectant treatment was adopted.

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[*] Arch. Ophth. Vol. XXVIII., page 402.

Dr. BRUMMITT (President) described a case in which he found a boy, five or six years old, with a violent, stridulous cough and husky voice; both symptoms had commenced suddenly an hour or two earlier. The mother suggested a "grass-seed" as a cause of the trouble. Careful examination failed to reveal the source of irritation, and, as the cough soon subsided, no further attention was required. Several months later the boy had pleurisy; pain was severe, there was no effusion into pleural cavity, and in due course recovery appeared to be complete. Some weeks later still, an abscess formed over the seat of recent pleuritic pain. When incised it yielded a quantity of pus and a "grass-seed," with glumes and awn complete. Recovery was speedy and permanent. In another case, a man had been admitted to hospital with pneumonia. He was almost voiceless, but explained with difficulty that while eating soup a few days previously something had gone wrong. He had sought advice, and had been assured that no foreign body occupied his throat. The character of cough and voice led to examination, and a piece of bone, irregular, and with sharp edges, was removed from the larynx. Two days later the patient died of pneumonia. *Post-mortem* examination showed laceration of laryngeal lining about and below the epiglottis.

NEW SOUTH WALES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

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THE regular monthly meeting of the Branch was held at Royal Society's Room, on Friday, 26th April, at 8.15 o'clock. Present: Dr. J. Foreman (President) in the chair, Drs. Crago, Rennie, Hankins, McDonagh, Phillip Thane, Cleland, Flashman, Clubbe, Gledden, Cosh, Litchfield, Jamieson, Flynn, West, Maitland, Isbister, G. Armstrong, Mary Booth, Morgan Martin, Thomas, Morton, Blackwood, Corlette, Sinclair Gillies, Wade, Burfitt. Visitor: Dr. John Harris.

The minutes of the previous meeting were read and confirmed.

Dr. RENNIE read "Some Notes on a Case of Cerebellar Defect." (See p. 163.)

The President (Dr. FOREMAN) would like to know whether the statement made by the grandmother, that the child had been mentally deficient from birth was accepted by Dr. Rennie as more reliable than that of the mother, that the boy did not exhibit any deficiency till after he had had a fall when some six months old. With regard to the speech defect referred to in the paper, he was inclined to regard that as the mere mispronounciation common to children learning to talk.

Dr. RENNIE said the mother held the opinion that the child was quite well up to six months old, when he had a fall, while the grandmother states that the child was not right from birth. As to the defect in speech, in his opinion it pointed to a want of co-ordination in the movements; it was not to be explained away as simply being the ordinary defect of childhood. As to maternal impressions, we often get a history of physical or mental strain, and this no doubt accounts for some of the ideas on this subject.

Dr. MAITLAND read a report of "A Case of Extra-peritoneal Ureterolithotomy.' (See p. 165.)

Dr. JAMIESON was puzzled by the statement attributed to Dr. Harris in the paper. How was it possible by simply taking a skiagraph of a stone to diagnose its composition to be oxalate of lime? The fact that oxalate of lime was found in the urine would not justify one arriving at such a conclusion. With reference to the slight hydronephrosis of the kidney he thought the stone had acted as a ball valve, and caused only partial obstruction of the ureter,

He (Dr. Jamieson), referred to a specimen he had seen at Prince Alfred Hospital.

Dr. HANKINS explained that he had understood from hearing Dr. Harris' paper on "X Rays" recently, that he had stated that stones of oxalate of lime cast a stronger shadow than others. He would like to know the size of the catheter Dr. Maitland had used, and also whether there had been any escape of urine.

Dr. MAITLAND said he considered Dr. Jamieson's explanation of the slight condition of hydronephrosis entirely wrong. Complete blockage of the ureter caused atrophy of the kidney, and incomplete blockage hydronephrosis, which was the opposite to what Dr. Jamieson had stated. What was the effect of tying the ureter? Why, atrophy and not hydronephrosis, and the explanation was that when a ureter was suddenly blocked the backward fluid pressure of the urine causes a marked diminution in the flow of blood through the kidney, and atrophy of the organ takes place. Dr. Maitland quoted Henry Morris and David Newman as authorities—two of the best-known renal surgeons. The case that Dr. Jamieson quoted as an example to illustrate his contention was no argument to use, because what had probably taken place in the case he had mentioned was first of all incomplete blockage of ureter, giving rise to a condition of hydronephrosis, followed by obliteration of the ureter below the calculus. In answer to Dr. Hankins he wished to state that the stone was an oxalate lime one, and Dr. Harris' diagnosis was correct. Dr. Hankins had explained the reason why the diagnosis could be made. Concerning the cystitis, an explanation of which Dr. Thane had asked for—the man was 72 years of age, had an enlarged prostate, therefore probably some residual urine, and was confined to his bed; a chain of circumstances quite sufficient to account for the cystitis.

Dr. CLELAND read a paper on "A Case of Cerebrospinal Meningitis." (See p. 169.)

Dr. SINCLAIR GILLIES congratulated Dr. Cleland on the way in which he had worked up the case. He had had several opportunities of seeing the case while in hospital when he believed the early diagnosis had been rheumatic fever. The result of lumbar puncture was not surprising as it was not done till late in the case, when, as often occurs in such cases, a negative result was obtained. He considered lumbar puncture of great value in diagnosis, a negative result on one attempt should in suspicious cases be followed by another attempt next day. Cases were cited showing the importance of this, also a case of cerebral abscess complicated by septic meningitis where performance of puncture proved the presence of meningitis and prevented an unnecessary operation. The variability in the inter-relation of pulse and respiration rate and temperature, and the sudden changes of pulse and respiration were important, but not so consistently present as he had been inclined to think from observation of the earlier cases. He drew attention to the occurrence in this epidemic of instances where two or three cases occurred in the same house and suggested the advisability of adding cerebro-spinal meningitis to the list of notifiable diseases.

Dr. **CORLETTE** said that he was thoroughly in accord with the desirability, in the abstract, of having such diseases as cerebro-spinal meningitis made notifiable. Indeed, the ideal practice of State medicine would include the notification of all sickness, infectious or otherwise, just as births and deaths were registered. This was the present practice in the army and navy. If such a height of perfection were attainable, which it was not, there is not the slightest doubt that the general sickness rate, as well as the death rate, could be very materially lowered, by the resulting improvement of our knowledge, and enlargement of our opportunities of prevention. But without going quite so far as this, we ought to go as many degrees towards it as may be possible, and cerebro-spinal meningitis seemed to be one of those diseases which it was specially desirable to include as notifiable, owing to its specific nature and its tendency to epidemic prevalence. There were many other diseases whose special peculiarities made them appropriate subjects for notification in some form or other, and these were not necessarily always infectious. Arsenical poisoning was a case in point, since a practical demonstration of the desirability of notification had been furnished by the recent English epidemic. But our present Public Health Act in New South Wales was so constructed that a disease could not be proclaimed as notifiable except as an infectious disease. A study of the Act showed, moreover, that an infectious disease was understood implicitly, in a special sense, as one of the kind illustrated by scarlet fever, diphtheria, or enteric, and, if his reading of the Act was correct, a disease could not be made notifiable without bringing into operation *ipso facto* a great number of provisions restricting individual liberty to a very considerable extent, with severe pains and penalties for transgression thereof. But, however well adapted all this might be for scarlet fever and the like, it would be unthinkably intolerable, ridiculous and barbarous, to make it apply indiscriminately to many of the less intensely infectious diseases, tuberculosis for instance, or to some of those others, epidemiologically distinguishable, with more or less propriety, as "place" diseases, of which beri-beri was a typical example. It had always been his opinion that the Public Health Act of 1896 should have been constructed so as to make classification possible, under which a scientific adapting of measures to needs became easy. He had pointed out this deficiency before the Act was passed, suggesting that the provisions included in the infectious diseases section of the Act should be detailed by Royal proclamation, and not prescribed throughout, as they were, in the clauses of the Act. To pass on to another matter, he was very sorry to note that a nostrum called "Antikamnia" had received official patronage at the Prince Alfred Hospital. Besides its being, so far as most people are concerned, a secret preparation, the company who quack it so energetically have distinguished this nostrum above all others, by the highly objectionable, not to say coarse and revolting nature of some of their circulars. That one circumstance alone ought to be enough to boycott the firm and all their preparations, so far as we are concerned.

Dr. **RENNIE** said he was interested in this case. He had seen it at the Prince Alfred Hospital. Dr. Barlow had stated that mercurial treatment was beneficial; it acted as a germicide.

The Hon. Secretary (Dr. **HANKINS**) reported that the attempt to get a conference with the Officers of the Oddfellows Medical Institute had failed, and the Council had decided that the Medical Institute of the Manchester Unity, I.O.O.F., was "an Association prejudicial to the interests of the profession in terms of Article of Association No. 35a, and that upon the medical officers being so informed they had each given one month's notice of resigning their positions. Steps had been taken to get the co-operation of the medical profession generally throughout Australasia and England, and several answers had been received promising co-operation. Arrangements had also been made to get every medical man seeking registration informed as to the stand being taken by the profession in the question of lodges, clubs, etc.

A special general meeting of the Branch was held at the Royal Society's Room on Friday, May 3rd, 1901, at 8.15 o'clock. Dr. Foreman (President) in the chair. There were also present: Drs. Goode, Coutie, Spencer, Hankins, Rennie, Crago, W. E. Warren, Ludowici, Todd, Doak, Taylor Young, G. L. O'Neill, McDonagh, Clark, Parker, Gledden, Corlette, Levy, Maitland, Gordon Craig, Carruthers, Kater, Lipscomb. Visitor—Dr. Philip.

The circular convening the meeting was read by the President.

A Special Meeting of the Members of the British Medical Association, both Members of the Branch and Unattached, residing in New South Wales, will be held at the Royal Society's Room, Elizabeth-street, on Friday, 3rd May, at 8.15 p.m., to consider the Provisional Report of the Committee appointed by the Annual General Meeting of the British Medical Association in August last, to suggest the best means of re-organising the Constitution of the Association.

A letter from the Chairman of the Constitution Committee with reference to the proposed alterations in the Constitution was read.

The report of the Committee appointed to draw up resolutions dealing with the matter was placed before the meeting, and it was decided to deal with the recommendations *seriatim*.

RESOLUTIONS PASSED.

1. "That the New South Wales Branch, while approving generally of the Constitution Committee's Scheme for the reorganisation of the Association, does not feel justified in taking an active part in the discussion of its details except in so far as they affect the members in the Australian States."

2. "That the New South Wales Branch holds that the new Constitution should specifically provide that the Australian Branches shall have complete autonomy, subject to the fundamental laws of the Association, as declared in the Memorandum and Articles of Association of the company."

3. "That the New South Wales Branch holds that the fundamental laws of the Association ought, under no circumstances, to be declared in by-laws, or otherwise, than in the Memorandum and Articles of Association" (see recommendation 14 of the Constitution Committee).

4. "That the New South Wales Branch holds that there is grave risk to the future usefulness of the British Medical Association, as a factor in advancing and maintaining the interests of the medical profession in Australia, unless the Australian Branches are free to

make and give effect to their own rules for the admission and expulsion of members."

5. "That the New South Wales Branch holds that the annual subscription of the members of the Association in the Australian Branches should not be made to include any sum contemplated to be made a refund in the form of a 'capitation grant,' as proposed in the first, third and fourth paragraphs of the Constitution Committee's Recommendation 20; and that the Australian Branches and Divisions be empowered to make rules regulating the subscriptions of their members, which shall include the annual subscription of their members to the Association."

6. "That the Association, in the event of the recommendations for local organisation, by means of divisions and the agglomeration of such divisions into branches, being adopted, be asked to approve of the New South Wales Branch remaining undivided (see recommendation 3), and so of being regarded as a division for the purposes defined in the recommendations."

7. "That a copy of these resolutions, 1 to 6, be forwarded to the General Secretary, with the reply sent to the letter of date, January 31st, received from the Chairman of the Constitution Committee."

8. "That a letter be sent from the New South Wales Branch to the Association, asking that, in the event of the Association adopting a new constitution, or any modification of that now in existence, special provision be made therein to the effect that the Australian branches of the Association shall be autonomous, that is to say, shall have power to make their own rules and regulations, subject only to the fundamental laws of the Association, as declared in the Memorandum and Articles of Association of the British Medical Association, or in the Charter thereof, as the case may be, and that such fundamental laws shall not prohibit the Australian branches from making rules and regulations for the admission and expulsion of members, and asking, further, that the annual subscription to the Association of the members of such branches be not made to include any 'Capitation Grant,' as that proposed in recommendation 20 of the Constitution Committee's provisional report to the branches."

Dr. **GOODE** said with reference to the alteration of the constitution, there could be no doubt that the representation was not properly distributed, for instance, this branch with 400 members was not properly represented, therefore, an alteration in the constitution was very necessary. Better facilities for members to express their views should be given. It appeared to him, however, that unless we were prepared to accept the whole of these recommendations, the only other alternative was for us to cease to belong to the association, and to start an association on our own behalf.

Resolutions 1 and 2 were carried.

Dr. **TODD** said that looking at recommendation 14, which provided that branches of the association should be subject to articles of association and by-laws. It did not appear to him that the branches should be governed by by-laws, which could be changed much more easily than articles of association. In his opinion the branch should be subject only to the articles which embodied the fundamental rules of the association. No constitution could have fundamental laws set out in by-laws.

Dr. **GOODE** said it must be remembered that there were other Branches besides this, and that we should be careful in the matter.

The **PRESIDENT** stated that each Branch had been asked for an expression of opinion.

Resolution 3 was then carried.

Dr. **GOODE** desired to know if the Branch had not the power of election and expulsion at present.

Dr. **HANKINS** said the members had the power to expel from the Branch but not from the Association. If expelled from the Branch they would become unattached members. Now it was proposed to do away with unattached members, so that expulsion from the Branch would mean expulsion from the Association, therefore the Parent Association proposes to withdraw the power of expulsion from the Branch, which we think unjust as applied to our own case.

Resolutions 3 and 4 were adopted.

Dr. **HANKINS** said with reference to Resolution 5 it was proposed to raise the present subscription to the Home Association 25s., and to return to each Branch a capitation fee of 4s. for expenses. The present method was to collect the subscription here and forward the 21s. for each member to the Home Association, which was a much simpler process.

Dr. **CRAGO** said, in addition to the present method being simpler, the expense had also to be taken into consideration. There would be the extra cost of sending the larger amount Home, and then there would be the cost of sending the capitation fee back.

Resolution 5 was carried.

Dr. **HANKINS** said the need of the proposed resolution 6 was, that a subdivision of this Branch would be impracticable. He had made a map of New South Wales showing the location of members of the Branch, and found that there were 224 members in Sydney, 21 at Newcastle, and a few towns such as Goulburn and Bathurst contained four or five members, the remainder only one or two. It was therefore much easier for country members to send their opinions on to one of the members of the Council than to try and organize sub-divisions in such a sparsely populated area.

Resolutions 6, 7, and 8 were carried.

Dr. **SPENCER** proposed the following rider to Resolution 8. It was not seconded:—"That, whereas the proposed re-organised constitution of the British Medical Association provides for the delegation of medico-ethical enquiries and recommendations to subordinate bodies (called divisions), whereas that provision is useful and desirable although its method is inapplicable to our local conditions; and whereas there exist subordinate bodies composed of members of this Branch which fulfil that provision, the Council of this Branch be requested to urge upon our members the advantage of affiliation with that subordinate body (either the North Sydney, the Western or Eastern Suburbs, or the Metropolitan Medical Association) within whose sphere they practice.

Dr. **TAYLOR YOUNG** proposed a hearty vote of thanks to the Sub-Committee, Drs. Hankins, Bennie, and Todd, for the trouble they had taken in preparing the resolutions. Carried.

Dr. **HANKINS** thanked the members for the vote of thanks, and said he would like to draw attention to the fact that in the work of putting the resolutions into shape they were all much indebted to Dr. Todd.

Dr. **G. L. O'NEILL** said he would like to move a vote of thanks to Drs. Murray Will, Kater, Palmer, and John Harris for their readiness in falling in with the views of the members and resigning their positions on the Medical Institute, M.U.

Carried by acclamation.

The Council met at the Editor's Room on Tuesday evening, April 16th, at 8.30 o'clock. Present: Drs. Foreman, Knaggs, Rennie, Crago, Hankins, Todd, Jamieson, Hinder, Worrall, Brady, Abbott, Fiaschi.

The minutes of the previous meeting were read and confirmed.

A letter from the Chairman of the Constitution Committee of the Home Association, with reference to certain amendments in the constitution, was read.

Resolved—"That the matter be postponed until next meeting of the Council, and that Drs. Todd, Rennie, and Hankins be appointed a sub-committee to draw up resolutions on the subject."

The **Hon. Secretary** read the correspondence which he had had with the Secretary of the Medical Institute, M.U.I.O.O.F."

Resolved—"That the Medical Institute, Manchester Unity I.O.O.F., of Elizabeth Street, Sydney, is an association which is prejudicial to the interests of the medical profession under Article of Association 35a."

The **Hon. Treasurer** reported that the credit balances were—General account, £252 16s. 8d., and the *Gazette* account, £67 15s. 2d.

Accounts passed for payment—Pepperday & Co., £5 1s. 6d., and stamps and stationery, £5 15s. 3d.

The Council met at the Editor's Room, on Thursday evening, 25th April, at 8.30 o'clock. Present: Drs. Foreman, Knaggs, Hankins, Rennie, Jamieson, Brady, Todd, Worrall, Crago, Abbott, Hinder, Fiaschi.

The minutes of the previous meeting were read and confirmed. A letter was read from Professor Stuart with reference to the second edition of the "Catalogue of Scientific Serial Literature." Dr. Rennie was appointed to represent the Branch.

Amendment of the Constitution.—The consideration of the amendments drawn up by the sub-committee on the question, after discussion and amendment, were approved, and it was resolved that a special general meeting of the members of the Branch and the unattached members of the Association be held on Friday, 3rd May, at 8.15 o'clock. Resolved that copies of the resolutions be forwarded to the different Branches.

The **Hon. Secretary** reported that the medical officers of the Medical Institute, M. U., had given the necessary month's notice of discontinuing their positions, also that all the Australian Branches had been communicated with regarding the advertisements of the Medical Institute for fresh medical officers.

Resolved: That a circular be sent to all members of the profession drawing attention to the fact that Drs. Murray Will, John Harris. A. A. Palmer and Kater had resigned their positions.

Resolved: That an advertisement be inserted in the Press asking applicants or intending applicants for appointments to Friendly Societies to interview the Hon. Secretary.

A letter was read from Dr. Woodward with reference to the registration of B. A. Leonard.

It was decided to have the Articles of Association reprinted.

Accounts passed: Refreshments for general meetings, £2; cables, £1 18s. 6d. and 14s. 7d.; stamps for Hon. Secretary, £1.

Dr. **Jamieson** brought the subject of binding certain journals for the library under the notice of the Council. It was decided to leave the matter in the hands of Drs. Mullins and Jamieson to deal with.

PROCEEDINGS OF OTHER SOCIETIES.

THE WESTERN SUBURBS MEDICAL ASSOCIATION, SYDNEY, N.S.W.

◆

The eleventh annual meeting of the above Association was held in the Petersham Town Hall on Friday, April 19th, 1901. There were present Drs. McIlroy (in the chair), Hinder, Purser, Abbott, Blackwood, Maguire, Wade, Hetherington, Kelly, Wood, Frizell, Cosh, and Lipscomb. Drs. Rennie, Hall, Blue, and Blackburn were present as visitors.

The minutes of the last annual meeting were read and confirmed, and the hon. Treasurer's report for the year presented and adopted, after which the following were declared to be the office bearers for the ensuing year:—President, Dr. F. M. Blackwood; Vice-Presidents, Drs. Hinder and Mills; Hon. Treasurer, Dr. Hetherington; Hon. Secretary, Dr. J. J. Kelly; Council, Drs. Abbott, Cosh, Frizell, and Wood; Auditors, Drs. Lovegrove and Bucknell. The retiring president—Dr. McIlroy—then read his address in which he referred briefly to the more important medical matters of the year, after which the meeting resolved itself into a smoke concert.

BRITISH CONGRESS ON TUBERCULOSIS FOR THE PREVENTION OF CONSUMPTION.

◆

To be held in the Queen's Hall, London, from July 22nd to July 26th, 1901.

Patron:

His Most Gracious Majesty King Edward VII.

Every British Colony and Dependency is invited to participate in the Congress.

Programme.

Section I.—State and Municipal.

Division 1.—Statistical.

Divisions 2 and 3.—The Notification of Tuberculosis; The Influence of Housing and Aggregation.

Division 4.—Control of Milk and Meat Supplies.

Division 5.—The Provision of Sanatoria.

Section II.—Medical, including Climatology and Sanatoria.

Section III.—Pathology, including Bacteriology.

Section IV.—Veterinary (Tuberculosis in Animals).

Museum.—In connection with the Congress it has been decided to form a temporary museum illustrating the pathology, treatment, or prevention of tuberculosis.

The fee of membership is £1, which entitles the member to a copy of the "Transactions," but in addition donations towards the general expenses of the Congress are earnestly requested.

Mr. Malcolm Morris, 20 Hanover Square, London, W., is the Hon. Secretary-General, to whom all communications should be addressed.

In addition to the work of the Sections, public addresses will be given to the whole Congress by Professor Koch, of Berlin, Professor Brouardel, of Paris, and by Professor McFadyean, of the Royal Veterinary College.

Drake Medical Association.—Medical Officer required for the above Association; particulars on application to the undersigned.

Chas. J. Robinson,
Drake, April 20th, 1901. Secretary.

THE SYDNEY METROPOLITAN MEDICAL ASSOCIATION.

◆

AT a meeting of the medical profession held on 17th April, at 121 Bathurst Street, it was decided to form an Association on similar lines to the suburban associations to be known as the Sydney Metropolitan Medical Association. Dr. G. T. Hankins was temporarily elected president, Dr. A. Palmer, honorary treasurer, and Dr. Sinclair Gillies, honorary secretary; and these three gentlemen were directed to call a further meeting and submit to it rules and by-laws for the Association.

A second meeting was held at the Royal Societies' Rooms, Elizabeth Street, on the evening of Thursday, May 2nd, Dr. Hankins being in the chair. There were present: Drs. Hankins, W. Harris, John Harris, Spencer, Kirkland, Taylor-Young, West, Mary Booth, McDonagh, Corlette, G. Armstrong, Foreman, Crago, Saunders, Rennie, Fairfax Ross, Binney, Levy, Jamieson, Gledden, O'Hara, Hamilton Marshall, Maitland, McMurray, Wilkinson, Dixson, Hinder, Nash, Walker-Smith, Langton, Palmer, and Sinclair Gillies. A draft of the proposed rules and by-laws was read by the chairman, discussed, amended, and adopted.

The election for office-bearers resulted as follows:—President, Dr. G. T. Hankins; vice-presidents, Drs. MacCormick and Clubbe; committee, Drs. Taylor-Young, Gledden, Spencer, West, and Maitland; hon. treasurer, Dr. A. A. Palmer; hon. secretary, Dr. Sinclair Gillies; auditors for the ensuing year, Drs. O'Hara and Levy. In the discussion which followed it was suggested that meetings be held during the winter of a social character, at which, after transaction of business, smoking and singing be allowed.

Appended is a copy of the rules and by-laws.

RULES AND BY-LAWS.

1. That this Association be called the "Sydney Metropolitan Medical Association."

2. The objects of the Association shall be—

   (*a.*) The consideration of matters relating to medical practice generally.

   (*b.*) The maintenance and advancement of the interests of the medical profession in its relations with the public.

   (*c.*) The encouragement of friendliness and comity in its members.

   (*d.*) The promulgation of established rules of professional ethics, with the aim of promoting fair and honourable methods in professional practice.

   (*e.*) The provision of means for determining disputed questions of professional usage and courtesy, and for investigating the truth of allegations affecting the conduct of members in a professional respect.

3. The Association shall consist of duly qualified medical practitioners, irrespective of sex, not excluded by any of the rules and by-laws to be classed as members and honorary members.

4. Members shall be practitioners in the undermentioned districts:—City of Sydney, Redfern, Waterloo, Alexandria, Botany, Erskineville, Newtown, Enmore, Camperdown, Forest Lodge, Glebe, the committee to have power to add to these districts when it is deemed advisable.

5. Any duly qualified medical practitioner desirous of being admitted as a member of the Association must be proposed in writing by a member to whom he is personally known, and his professional qualifications stated; the nomination to be sent to the secretary, who shall lay it before the committee at its next meeting. The election shall be by open voting, and shall be carried by the majority. Each member on admission shall pay his subscription for the current year, and shall pledge himself to abide by the rules and by-laws of the Association.

6. Duly qualified medical men not practising in the districts embraced by this Association may be elected by the committee as honorary members on subscribing to the rules and by-laws.

7. Members and honorary members shall have the privilege of attending all meetings of the Association, and of speaking at such meetings. When any subject connected with the management of the Association is under discussion, honorary members shall not be entitled to vote.

8. The first subscription shall be ten shillings and sixpence, payable in advance. Any member neglecting to pay his subscription within three calendar months after it becomes due shall be reminded thereof, and if his subscription be twelve months in arrears he shall cease to be a member, unless the delay has been accounted for to the satisfaction of the committee of the Association and arrears paid up.

9. The privileges of membership shall not be exercised by any member over four months in arrears with his subscription

10. The affairs and funds of the Association shall be managed by a committee, consisting of the president, vice-presidents (two), committeemen (five), hon. treasurer, and hon. secretary, all of whom shall hold office for one year, and be eligible for re-election.

11. The committee shall be elected from members only. Nominations for the various offices, made in writing and signed by the proposer and seconder, shall be sent at least fourteen days before the annual meeting to the secretary, who shall at least seven days before the annual meeting issue ballot papers, containing the names of all the members proposed, to be returned to him at or before the annual meeting.

12. The hon. treasurer shall receive all moneys, and lodge the same in the bank to the credit of the Assocition. Cheques for payment to be signed by the hon. treasurer, and also by the president or hon. secretary.

13. There shall be two auditors, who shall be elected at the annual meeting.

14. The committee shall hold as many meetings during the year as may be necessary for the despatch of business, five to form a quorum. Due notice of all meetings shall be sent by the hon. secretary to every member of the committee. The hon. secretary, on request from the president or any three members, shall call a meeting of the committee. The committee shall determine questions by vote, the chairman having a deliberative and casting vote.

15. The committee shall have the power—

   (*a.*) To fill up any vacancies which may occur in the list of officers of the Association except that of President, such members appointed holding office till the next ensuing annual meeting.

   (*b.*) To arbitrate in disputes, decide questions, and establish rules of professional conduct.

   (*c.*) To censure or recommend for expulsion any member for misconduct or disobedience to the laws or decisions of the Association, such member to receive from the hon secretary seven days' notice to attend the meeting, and a statement of the nature of the charge brought against him. When the expulsion of a member is under consideration, the committee shall be summoned for that business only, six to form a quorum, and a majority of the members present shall decide the matter.

16. The meetings shall be: The annual meeting, ordinary meetings, and special meetings. At all meetings ten shall form a quorum.

17. The annual meeting shall take place on the first Thursday in May in each year, for the election of officers, committee, and auditors, and for general business of the Association. Twenty-one days' notice of the annual meeting shall be sent by the hon. secretary to all members.

18. Ordinary meetings shall take place on dates fixed by the committee, who shall arrange the business of the meeting.

19. Special meetings shall be called by the committee when necessary, one week's notice being given. The president shall, on receiving a requisition signed by six members, and on giving one week's notice, summon a special meeting for the consideration of particular business, the nature of which must be specified in the letter of summons convening the meeting, at which no other business can be transacted.

20. Any member may introduce visitors to ordinary meetings with permission of the chairman.

21. New rules and by-laws, or alterations in existing rules and by-laws, may only be proposed at the annual or a special meeting. The hon. secretary shall send notice to each member at least one week before, with a statement of the proposed addition or alteration, which can only be passed by the consent of two-thirds of the members present at the meeting.

22. Any member may be expelled by a majority of three-fourths of the members present at a special meeting called for that purpose only, provided that such meeting be held within fourteen days after the committee meeting at which the matter was considered, and that seven days' notice of the meeting be given to the member affected thereby, and that there be not fewer than half of the total number of members of the Association present at the meeting. Notice of the expulsion shall subsequently be sent to the members by circular, and the expelled member shall not afterwards be met in consultation.

23. The Association can be dissolved only by the votes of two-thirds of the members present at a special meeting convened for the purpose, when the funds and properties in hand will be disposed of in such a manner as the majority may direct.

By-Laws.

1. Any practitioner who may act in opposition to the principles involved in the succeeding by-laws shall be ineligible for membership of the Society; and if already a member shall, on infringing the same, be liable to expulsion.

2. No member shall tender for or accept any lodge or society in any district on terms below those fixed as the minimum by the Medical Association of the district in which such lodge or society is situated.

3. No member of the Association shall be connected with any Medical Aid Society or other kindred society which has been declared by the committee, or by the N.S.W. Branch of the B.M.A., to be prejudicial to the interests of the profession.

4. No member of the Association shall meet in consultation any medical practitioner excluded from membership by the by-laws or by resolution of the Association. Should any such consultation take place, the fact shall be notified to the committee within three (3) days of the occurrence by the consultant himself.

5. All members of this Association shall pledge themselves in every legitimate way to bring pressure professionally to bear upon all members of the medical profession who contravene the principles of the Association, and to encourage all eligible practitioners to join the Association.

6. Should any office or lodge become vacant in consequence of any resolution passed by this Association, no member shall oppose the medical man who has held the position of medical officer in the event of his seeking re-election.

ABSTRACTS.

EOSINOPHILOUS LEUKOCYTES IN HYDATIDS.

Dr. G. Memmi, of the University of Siena, published in the *Rivista Critica di Clinica Medica*, 6th April, 1901, a preventive note on observations made by him on the blood of patients suffering from hydatids. Following up an observation of Achard,[*] who in the case of a measled woman (cysticercosis) found that her blood presented considerable eosinophilia (5,900 leukocytes with 11% eosinophiles), he examined the blood of five cases of hydatids of the liver and one of the lungs. All these presented leukocytes with eosinophile granules varying from 8% to 18%, and on examining again the blood two days after operation, a marked diminution of above granules was at once noticed.

Furthermore, a case presenting the clinical symptoms of a suppurating hydatid of the liver on repeated examinations of the blood presented barely ½% of leukocytes with eosinophile granules. On operation the case was found to be a simple abscess of the liver.

Dr. Memmi concludes that these cases examined within a brief space of time, but presenting all such uniform characters, may lead us to the conclusion that eosinophilia is a constant fact in cases of hydatids.

The above note will not be without interest in Australia, and if correct may prove of practical value in doubtful cases of hydatids.—T. F.

SHORT EXTRACTS FROM FOREIGN MEDICAL LITERATURE.

By Walter Spencer, M.D., Enmore, N.S.W.

Annales de Medecine et de Chirurgie Infantiles, Paris, from September 15, 1900, to January 15, 1901, Dr. Fournier showed a boy *congenitally devoid of hair*, whose nails are yellow and loose, and whose grandmother, father and brother present the same abnormalities.

Professor Concetti, of Rome, treats of *acute non-tubercular meningitis* in children. He records 90 cases, as well as 13 of recent acute polyo-encephalo-myelitis which have to be considered from the same standpoint. Of all except 18 he has made complete studies with all the resources of bacteriology and chemistry, utilising cerebro-spinal fluid obtained by lumbar puncture, supported by experiments on animals. The bacterial element was isolated in 29 cases, 12 of which furnished the diplococcus of Talamon-Fränkel, 12 the intracellular diplococcus of Weichselbaum, four the bacterium coli. com., and one the pyocyanic bacillus.

Thanks to lumbar puncture, bacteriological research is possible in every case. Two facts are demonstrated,

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[*] Société Médicale des Hopitaux de Paris Séance du 13 Juillet, 1900.

i.e., the predominance and relative benignity of meningococci and the existence of simple serous amicrobial forms. The cerebro-spinal fluid is a bad culture medium, and the meningococcus displays a marked tendency to saprophytic over parasitic existence for this reason. This micro-organism is an unique type, but undergoes variation according to its vital conditions.

The author passes in review the diplo-pneumococcic, diplo-meningococcic pyocyanic, streptococcic, staphylococcic forms of meningitis, supplying charts, microphotographs and culture pictures. He shows also that in the course of an acute gastro-intestinal affection, the bacterium coli may traverse the intestinal wall and cause, amongst other localisations. a serious acute—perhaps a mortal—meningitis. He gives his opinions on acute amicrobial meningitis, and on acute encephalo myelitis. He concludes that the various acute symptoms referable to the central nervous system in infancy should be considered as the results of an unique causal element of toxi-infectious nature, acting in the same way and causing the same effects. Founded on this conception of unity, a new task of analysis arises to examine the various forms from the standpoint of the causal, determining, exogenous, or from the individual, predisposing, endogenous element, in order to account for the different localisations or clinical and anatomo-pathological changes.

Profs. Baumel and Scheydt, of Montpellier and Cette, publish a remarkable exception to the termination of serious cases of *athrepsia* predicted by Parrot. "Coma and convulsions," says the last-named, "always announce a proximate demise and coincide with extinction of the cry, great alteration of countenance, lividity of skin and anuria." In this case the athrepsia lasted four months from birth, during which period the infant lost 680 grammes in weight, and when improving actually gained o2 grammes daily (instead of the normal gain of say 20 grammes). Vomiting was often persistent, urine scant or absent, constipation obstinate, sleep short, and thrush recurrent. The treatment was benzo-napthol, chloral for the convulsions, salicylate of magnesia and suppositories for costiveness, aristol for ulcerations. When improvement set in tinct. musk and lime water were added.

Dr. Derecq notes that a well-marked supplementary circulation on the thorax of a child should excite suspicion of pulmonary tuberculosis, and warrant most careful examinations.

Drs. Mairet and Ardin-Delteil state that hyoscine ¼ mg., gradually increased to ii. mg. per diem given hypodermically is an efficient remedy for *masturbation*, causing temporary impotence by acting on the genito-spinal centre, but that it accumulates in the system, and that individuals vary in susceptibility. Its toxic effects resemble those of atropine.

Dr. Aviragnet lectures on the treatment by sulphate of soda of *acute mucous and dysenteriform colitis*. After reviewing other methods, he records his own success as remarkable with sod. sulph. gr. 10–15 the first day and gr. 5 the following, for a child of 12 or 14 years, on the average for eight days.

Dr. Terrien considers that habitual acid intoxication in the gastro-enteritis of infancy is in relation to the intensity of the diarrhœa, and does not therefore increase with the consecutive cachexia, also that lavage of the stomach is of great value. In assisting gastric digestion, it obviates the increased secondary and compensatory action which would be required of intestinal digestion.

Dr. Blondel, reporting his experiences of thymus secretion, has found daily doses Gr. one of thymus powder, mixed with peptonised milk efficacious for *general debility* of the newly-born.

Space forbids further notice of the valuable contributions of Dr. Richardiere on *clinical forms of tuberculosis in early infancy*; of Dr. Tessier, on *the normal and pathological intestinal flora of the suckling*; of Dr. Redard, on *the treatment of severe forms of scoliosis*; of Dr. Spolverini, on *intravenous injection of metallic iodine;* of Dr. Escherisch, on *the doctrine of artificial feeding;* and of Dr. Spillman, on *the eitiology of rachitis.*

CRONICA MEDICA MEXICANA.—January 1st—Dr. Mejia relates the curious case of a toothless aged woman who was entering the last stage of *asphyxia* without any apparent cause. He noticed, however, that each attempt at inspiration caused the alæ nasi to collapse against the septum, and that lips and cheeks were similarly aspirated. Intubation of the nares gave immediate relief. She was emphysematous and he hazards the conjecture that a momentary access of dyspnœa concurred with maloxygenation of the blood to charge the centres with CO_2, whereupon the already flaccid muscles lost their tone. A similar case is quoted by Dr. Padilla, in Guanajuato.

JANUS. October, November, December, 1890.—Andrew Davidson contributes a paper on *heat melancholy* with reference to its influence on suicides. It is doubtful whether sunstroke in tropical countries is the more destructive to life. He considers it peculiar to temperate climates and most common when a high temperature sets suddenly in. Mental distress connected with love affairs strongly predisposes to suicide. Waves of heat give rise to cases of mental alienation.

The statement of Mr. Felkin is noticed that castor oil plants about a house, especially at the doors, are a protection against *mosquitoes:* also that of Mr. Hose (who was attacked with *beri-beri* after living upon mouldy rice) that a fungoid growth, the cause of beri-beri, develops in rice which has been kept long in bags in a damp climate.

Dr. Aschoff, of Göttingen, throws some interesting sidelights on outbreaks of the *Plague* as described by writers of antiquity, which were considered in so instructive and scholarly a manner by Drs. Dick and Tidswell (*Australasian Medical Gazette* 1899, p. 413). It would appear probable that the Hebrew word for mouse might with equal propriety be rendered "rat." Poussin's picture in the Louvre of the Plague of the Philistines, drawn after the discription of Ambroise Paré shows a multitude of rats. One of Picart's engravings of the same mentions rats, not mice, in the letterpress. The Vulgate edition of the Bible mentions "mures," a word which included the rat, the sable, the marten, and the ermine. The Septuagint gives :— "*χχὶ μέσου τῖς χώρας α'ιτῖιs ἀνεφίησαν μύες.*" Wellhausen maintains that the mouse was a symbol of the bubo. At Thebes the statue of Ptah the Destroyer was represented with a mouse in the hand.

According to Dr. MacCarry every physician should be able to diagnose certain diseases by their odour, that of mice in favus, peculiar acidity in rheumatism, nauseous breath in pyæmia, putridity in scurvy, musk in peritonitis, sour beer in scrofula, ammonia in simple fever, new bread in intermittent, and violets or pineapple in female hysteria.

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THE AUSTRALASIAN
MEDICAL GAZETTE.

EDITED FOR THE PROPRIETORS BY
SAMUEL T. KNAGGS, SYDNEY, N.S.W.;
AND FOR THE OTHER BRANCHES OF THE
BRITISH MEDICAL ASSOCIATION BY
A. B. BROCKWAY, BRISBANE, Q.; H. W. BRYANT,
WILLIAMSTOWN, VIC.; J. B. GUNSON,
ADELAIDE, S.A.; AND J. MASON, OTAKI, N.Z.

SYDNEY, 20TH MAY, 1901.

EDITORIALS.

HOSPITAL SATURDAY.

◆

THE public, at least, are to be thanked, and the collectors congratulated, on the magnificent response to the appeals made on behalf of the Hospital Saturday Fund. What is the profession's view of the matter? In the opinion of a number, and these too, having experience of hospital management, the Hospital Saturday Movement is not an unmixed blessing. Such an opinion naturally does not find favour in the public eye—they say: "Here we have a sum of over £4,000 which would not otherwise be collected." The questions are—(1) How does such a large and publicly advertised sum of money yearly paid to the hospitals, affect the ordinary subscriptions? (2) Does this movement encourage hospital abuse? To those who are responsible for the financial management of our institutions we must turn for an answer to the former question. The latter is the one which affects the profession. Does the Hospital Saturday Fund, with its ordinary, and particularly its in-door collections, give those who contribute a pretext for seeking hospital relief? if such be the case, we have here another of those institutions which offers cheap medical and surgical advice in the form of hospital treatment to those who help in the movement, and those who control the movement have privileges vested in them of recommending others as suitable recipients of charity. It will be within the recollection of our readers that some time ago the Hospital Saturday Committee made efforts to assert their right to certain privileges in connection with hospitals; such rights were questioned, and the Hospitals Board acted in a way which received the approval of this *Gazette* in an article, in August Number, 1898. The following is an extract: "To the credit of the management of the Sydney Hospital, the Prince Alfred Hospital, the Carrington Convalescent Hospital, the North Shore Hospital, the Western Suburbs Cottage Hospital, they refused to accept the dictation of this autocratic committee, who, by their action are now trying to alienate funds that were subscribed by members of the public for various charities, which they were led to believe would be benefited by these donations. We think that this action taken by the "Hospital Saturday Committee" is a breach of faith with those who have subscribed to the fund, and will ultimately prove a death blow to the Hospital Saturday, which, under the circumstances, would be "a consummation devoutly to be wished."

Although the hospitals generally have taken this stand, they accept the funds and continue the practice. If funds are now given unreservedly with no request for a *quid pro quo*, then the fund is a splendid institution, and would be used by the hospitals in such directions as the management in their wisdom deemed most advisable; the Hospital Saturday Authorities are hardly yet as magnanimous as this, and until they are, the profession can only adopt one attitude towards them. The movement must be received as one of the many organisations that have sprung up of late years which tend to more and more limit the number of the public who, by paying legitimate fees, help to support the members of an already overcrowded profession.

THE ADMINISTRATION OF ANÆSTHETICS.

THE report of the Committee on anæsthetics is to hand, and already has called forth reviews and criticisms in our journals. Every phase of the subject has been investigated clinically from the records of 25,920 administrations, and the conclusions of the Committee, as far as supplying anything definite for the guidance of those who are called upon to administer anæsthetics, are disappointing. The cases recorded are mostly chloroform and ether administrations, where it is shown that a very large proportion, 97 per cent., showed no intolerance of the drugs. This is common experience, and has been daily demonstrated since the general adoption of surgical anæsthesia; the other cases "went wrong," more or less, in some the difficulty was slight, in others, methods of restoration had to be used, and in twenty-four deaths occurred, four only died under ether administration, and these deaths, the Committee state, cannot be attributed directly to the anæsthetic. So we find a confirmation of what has been general experience for some time, *e.g.*:—That ether is a far safer general anæsthetic than chloroform, chiefly because, under its influence, comparatively few instances of untoward phenomena referable to the circulatory system present themselves, and those occurring referable to the respiratory system are trivial. So we must say, ' use ether wherever you can."

The only other conclusion to which importance may be attached is the final and single general conclusion "that by far the most important factor in the safe administration of anæsthetics is the experience which has been acquired by the administrator." Mr. George Eastes, in his remarks on the subject, says, "As to this final recommendation, it may be possible to act upon it in hospitals and big towns, but practitioners everywhere must, in emergencies, be prepared to administer anæsthetics. No one, therefore, should be allowed to qualify until he or she has shown proficiency in this very important branch of medical work."

We are, therefore, to examine carefully our cases for operation, and choose the anæsthetic most suitable to the case, giving ether the preference where possible, and then ask somebody who is well-experienced to conduct the administration; this will ensure the greatest measure of safety to our patient. Part of the general conclusion of the Committee is that "In many cases the anæsthetisation completely transcends the operation in gravity and importance, and to ensure success, particularly in these cases, it is absolutely essential that an anæsthetist of large experience should conduct the administration."

The question arises, should the administration of anæsthetics be the work of a specialist? In the larger cities at home it is so. It has been suggested that there would be good prospects for some of the profession to adopt this specialty. At present, in view of the report of this Committee, especially in its final suggestion, we should urge those responsible for directing the training of medical practitioners to pay more attention to the subject of anæsthetics in the medical curriculum. Certain extra and special subjects are being dealt with in lectures, the attendance on which is optional, but the subject of anæsthetics and their administration is not included. Surely a course of say, ten lectures on this important subject might well be included. As it is, it is simply dealt with in the ordinary lectures on Materia Medica and Surgery, with a few practical hints from one of the Senior Residents in Hospital.

The overwhelming evidence in favour of ether as a general anæsthetic demands that students and residents should familiarise themselves more with its use, and we would then find that the ordinary general practitioner could co-operate with the surgeon in any case of operation without having to call in the assistance of a specialist, and without any anxiety to the operator.

HONOURS TO MEDICAL MEN.

THE list of honours to medical men who have served with the Australian Contingents in South Africa has lately been published. We heartily congratulate our colleagues who have thus gained distinction on the battle-field; at the same time we must confess to some degree of disappointment at the number and quality of the decorations. We had become so accustomed to seeing the excellency of the New South Wales Army Medical Corps proclaimed by commanding officers and war correspondents alike, that we probably expected too much.

Colonel Williams, to whom is due the whole of the credit of bringing the New South Wales Army Medical Corps to its great state of efficiency, and who was entrusted with an important appointment in South Africa, has been made a Companion of the Bath (C.B.); we certainly could have wished for a knighthood for him Majors Fiaschi, Roth and Perkins, and Captain T. A. Green have been made Companions of the Distinguished Service Order (D.S O.); we are sure they all thoroughly won their decorations.

Several of the medical officers of the New South Wales Army Medical Corps were promoted in rank during the campaign, as from Captain to Major, or from Lieutenant to Captain, and we understand that at least two or three of those who received no decorations were specially mentioned by their commanding officers.

The nursing sisters who left Sydney with the second Contingent, have also come in for high commendation from Lord Roberts.

The profession in Victoria has been honored in the person of Sir Thomas Fitzgerald, who has been made a K.C.B. for a period of honorary service in South Africa. We heartily congratulate Sir Thomas on his additional honour.

Not only has the medical profession gained distinction on the battle-field, but, as Mayor of Sydney, Dr. James Graham has been created a Knight Bachelor in connection with the visit of their Royal Highnesses the Duke and Duchess of Cornwall and York to Australia. We congratulate Sir James Graham on his well-deserved honour. Not only has the sanitary supervision of the city been put on a proper footing since Sir James assumed the mayoral office, but necessary repairs and road-making are being pushed on with a vigour almost unknown in the annals of the city, in fact, the forecast of work to be done, mentioned in our editorial of December, 1900, is being rapidly accomplished.

THE SYDNEY METROPOLITAN MEDICAL ASSOCIATION.

◆

In another column will be found an account of the formation of the Sydney Metropolitan Medical Association. This society sets forth as its objects, "the consideration of matters relating to medical practice, generally; the maintenance and advancement of the interests of the medical profession in its relation with the public; the encouragement of friendliness and comity in its members; the promulgation of established rules of professional ethics, with the aim of promoting fair and honourable methods in professional practice; the provision of means for determining disputed questions of professional usage and courtesy, and for investigating the truth of allegations affecting the conduct of members in a professional respect."

Its formation is the outcome of the feeling that, at the present time, there is the greatest need for union among all ranks of the profession, and is a significant sign of the progress made of late in that direction. Events of the past few years have more and more forcibly impressed on the medical profession of Sydney, the need for united action in withstanding the many subtle schemes of certain classes of society, to obtain their services at an absurdly inadequate remuneration.

The suburban practitioners have already faced the situation by the formation of the Northern, Eastern and Western Medical Associations, each of which has done excellent work. With the formation of the Metropolitan Association this scheme is completed, and the profession of Sydney is united in the determination to obtain fair play from the public without and between its own members. The new society in no way interferes with or usurps the functions of the British Medical Association, which remains always the supreme arbiter in all matters of professional usage. By binding together the city practitioners, it will strengthen the hand of the British Medical Association, and it is hoped will render less frequent the disputes which have of late absorbed so many evenings primarily intended for scientific discussion.

We need scarcely remind the profession that all from the highest to the lowest have interests at stake, and that by working for the common good they best consult their own interests. So long as the junior thinks only of gaining appointments at any cost, to the detriment of his professional brother, so long will the profession suffer; and so long as such an offender can find a complaisant consultant, so long will he flourish.

We welcome the formation of the Sydney Metropolitan Medical Association as another link in the chain, that is being slowly but surely forged to fetter abuse of all kind, whether it arise from without or within our ranks.

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LETTERS TO THE EDITOR.

HOSPITAL ABUSE.

◆

(To the Editor of the Australasian Medical Gazette).

DEAR SIR.—I hasten to report to you an instance of abuse in connection with one of our public hospitals. I was called to see a patient in the city who had fallen down stairs. As she did not appear to be in good circumstances I suggested the hospital which suggestion she entertained favourably. I soon afterwards found that she was in a position to pay for private treatment, and suggested a private hospital at £3 3s. per week. She, however, instructed her executor to apply for admission on her behalf to St. Vincent's Hospital, where she was immediately admitted at a charge of £4 4s. per week; at the time she was under the impression that I could attend her there, but was told that only the hospital doctors could have their cases there; the authorities, however, would allow me to visit her as a friend as "the doctors never objected to this." Certain prejudice in favour of St. Vincent's weighed stronger with her than her prejudice in favour of any particular medical attendant, and, of course, I lost the case. This is my first experience, so I record it and think it my duty to do so; my only hope is that others, of whom there must be many, will mention when they suffer. We have now an Investigation Committee to whom such matters have been reported; in this instance, *i.e.* St. Vincent's, nothing has been done, but doubtless it will come within the scope of one or other of the excellent societies whose operations are now doing so much to help the profession. Thanking you in anticipation for inserting this communication,

I am,
Yours etc.,
"ONE OF MANY."

THE ADELAIDE HOSPITAL.

(To the Editor of the Australasian Medical Gazette.)

SIR,—Your leader on the Adelaide Hospital takes the same narrow view that has unfortunately characterised the question of late years in this city, and leaves untouched the original cause of this lamentable quarrel—lamentable because it has lowered the tone of the profession—because it has sundered life-long friendships—because it has ruthlessly attacked professional reputations—because it has retarded the advancement of medical science and kept our institutions behind the age. It was the introduction of the personal element that led to much disaster, and it is only to the personal element that your leader refers.

The real cause of the trouble still exists, viz., a dual control of the hospital, a system that allows of political influence being brought to bear. We have a Board of Management nominally responsible for the control, but behind this the Ministry of the day, who can over-ride all the actions of the board. The occasion came, a question of discipline occurred, and the board's action was over-ridden by the Government. The staff unfortunately took up the board's quarrel and resigned. Now after upwards of five years a portion of the old staff have returned, but the point on which they went out still remains. The hospital is still as much under a dual control as ever—the whole of this vast expenditure of good will and bad feeling has been absolutely useless.

The points which I consistently urged were these: That personalities should be sunk; that no obstacles should be placed in the way of men willing to accept positions on the staff, and that then definite efforts could be made to place the hospital under such control that a repetition of the past should be impossible.

A small board of commissioners, salaried and appointed for a definite period, irrespective of changes in the Government, would be one way. To alter the Act, which at present says at least one-sixth of the total expenses must be subscribed before subscribers can have a seat on the board of management, is another. Were the Act to run that at least three members of the board should be elected by subscribers with a *pro rata* increase with amount subscribed money would flow more freely into the hospital coffers, the amount from taxation would be lessened, and with the increased number of elected members of the board and the representatives of the University and charity commissioners, a board would be formed so independent of political influence that no Government could interfere with its deliberations.

It is useless crying over spilt milk, but had the proposals I made in 1897 been accepted, how much bitterness might have been avoided? (I enclose a copy of them.) It is to be hoped that broad and generous principles and actions will now be followed.

I have, etc.,
LEONARD W. BICKLE,
Hon. Surgeon,
Adelaide Hospital.

Copy of proposals submitted by me to many leading medicos, the editors *Advertiser* and *Register* and others, in 1897—

"That it is desirable both in the best interests of the profession and of the community that an honourable settlement of the present hospital dispute be arrived at. Mistakes having been made on both sides, both the Government and the profession must be prepared to give and take. The association as representing the profession gladly notice that the Government have recognised the principle for which the staff have been fighting by offering to re-instate the staff as a whole. The Government and the association recognise and respect the conscientious objections of some of the staff to go back.

"That in view of the above any member of the profession who may wish to do so can feel that he is now at liberty to accept any position on the staff without forfeiting the respect and esteem of his colleagues by so doing.

"That the Government are hereby advised that if applications for the formation of a new honorary staff be invited applications will be sent in. It is to be understood that reasonable preference be given to the former members of the staff who may apply. Professor Watson will be re-instated in his position as pathologist to the hospital. The clauses in the agreement with Dr. Napier with regard to seniority and definite appointment on the staff at the end of his term be, and are, hereby cancelled. He shall be at full liberty to apply for re-appointment when the vacancy is declared, and for re-appointment if elected by the board. In other words, his appointment will be on all fours with the rest of the staff. No member of the staff can be appointed to two offices at the same time. The staff shall be represented on the board either immediately or on the expiry of the present year of office by the present board.

"That it is desirable that the subscribing public be allowed to elect not less than three members of the board annually. No member to keep his seat more than six consecutive years at a time. The constitution acts of the hospital could be so amended that subscriptions should cover votes in proportion to be determined. In the best interests of the institution all matters relating to the internal discipline of the institution be absolutely determined by the board."

DEAR DR. BICKLE,—I have received your note of to-day's date. As you address it to me in my capacity of president of our Branch of the British Medical Association, I will lay it before the council at our next meeting. Meanwhile I would desire to acknowledge your courtesy in communicating your intention to seek an appointment at the Adelaide Hospital.

Yours very truly,
ALFRED LENDON.

North Terrace,
March 26th, 1897.

RECEPTION AND DINNER OF THE MEDICAL PROFESSION OF N.S.W. TO WELCOME MEDICAL COLLEAGUES WHO HAVE SERVED WITH H.M. FORCES IN SOUTH AFRICA.

◆

THE medical profession of New South Wales gave a dinner and reception to their medical colleagues who had served with H.M. Forces in South Africa, at the Hotel Australia on Thursday, April 18th, at 8 o'clock. Dr. Sydney Jones presided, and there were 105 present.

The guests of the evening were Major Fiaschi, Major Roth, Major Eames, Capt. Morgan Martin Capt. T. A. Green, Major Perkins, Lieut. Newmarch, Capt. Edwards.

Apologies were received from the Hon. Dr. MacLaurin, Dr. W. W. J. O'Reilly, Dr. Lamrock, Dr. MacCormick, Dr. Scot Skirving, Dr. Howse.

The CHAIRMAN (Dr. Sydney Jones) said the first toast was that which was honored by all loyal assemblages—"His Majesty the King." He would depart somewhat from the usual procedure, and before giving the toast would make a few remarks. During the past year, history in the British nation, and particularly the Australian portion of it, had been made rapidly, first there was the outbreak of the war in South Africa, and the sending of Australian Contingents to the assistance of the mother country; in this, the medical profession showed its loyalty to the Crown by many of our colleagues volunteering for active service in South Africa. Then with the dawn of the twentieth century, the Australian commonwealth was ushered in. Hardly had the festivities of this great event been completed when the death of our revered sovereign, Queen Victoria, was announced, and the nation was plunged into the depths of mourning. Passing on we come to the accession of King Edward VII. The toast was duly honored. The Chairman then called upon the Right Worshipful the Mayor of Sydney (Dr. James Graham, M.P.), to propose the second toast.

DR. GRAHAM said he did not know why he had been chosen to propose this toast when there are older and abler men present, Dr. Norton Manning, and others. However, he would not shrink from the duty imposed upon him. In proposing the toast of "Our Colleagues who have served with the British Forces in South Africa," he (Dr. Graham) would like to emphasize the esteem and regard in which these men were held by us, how glad we all were of their safe return and the brilliant record of their services. Amidst all the trials and dangers they had one and all been able to answer to the number of their mess, and had fully earned the blush of pride and the eternal gratitude of the public. Here he would like to mention one of our colleagues who had not been so fortunate, the late Dr. Steel, who had died while serving with the Australian Contingent in China. Dr. Steel had left behind him an honored name, he had the charming characteristics of a scholar and a gentleman. One of our confreres, Conan Doyle, says that this great Boer war has shown the world that men from Australia can be depended upon. We should be proud of them: they have shown their ability among the best and the bravest of the British Empire. We should, therefore, be proud of them both individually and collectively. We had been told by the war correspondents that when Dr. Fiaschi got up in the morning he did not know whether he should take up the sword or scalpel; there were also stories told about Major Perkins. The war correspondents, however, were not always to be believed. What we did learn from the war correspondents made us proud of our colleagues, and showed us that the best traditions of our high calling were being upheld by them. The N.S.W. Army Medical Corps was a credit to our State, and no Royal Commission would be needed to inquire into its working; it was not perfect, but its imperfections would be remedied by the experience gained by it during the campaign in South Africa. There are tales going the rounds with regard to the acquisition of tents and stretchers, which show clearly that the Army Medical Corps are quite able to look after themselves. With reference to the contingent of nurses that went to South Africa, they would hold their own with all and sundry. As there were many speakers to follow he would only say how deeply grateful we all were to those warriors who had returned. All could not go; there is, however, a saying which runs "They also serve who stand and watch." It was characteristic of our professional brethren to desire to serve the Empire, and we were proud of the men we sent, and proud of the work achieved.

DR. MCILROY sang "Ye Gallants of England."

MAJOR FIASCHI said he was one of those men who preferred to meet the enemy rather than make a speech. We must, however, do our duty. He desired to thank all for the reception and banquet, and also for the kind manner in which the members of the N.S.W. Army Corps had been met this evening. Whatever success had been attained in South Africa it had been secured by the combined effort of every member of the Army Medical Corps. It had been our good fortune to have Colonel Williams at the head of the corps, and to him the credit of the N.S.W. Army Medical Corps was due for his untiring efforts in its organisation. He had studied all methods, and had been backed up by the late lamented General Richardson, and also the Generals following. The Government had also not shirked its responsibility in providing the necessary funds; to this the success of the campaign had been due. The stamina of the men in the corps was good, and the work accomplished reflected credit upon them. Attention to the sick and wounded only obtained in countries which were civilized, the great anxiety which we had was to prove that as the representatives of New South Wales we were the champions of civilization in this State. Your treatment of us to-night shows that you appreciate our efforts. No doubt we should not have done so well had it not been for our non-commissioned officers, who showed in many instances "devotion unto death." Six of our men lost their lives for duty's sake. We cannot forget these men and women who were with us in South Africa.

As Dr. Graham had said better nurses were never in South Africa; they had done splendid work, and were a credit to New South Wales. Again thanking you for the kind expression of esteem, we always had in mind the Australian medical profession, and we tried not to tarnish it in any way.

Major **Roth** said he had very little to add to what had been said by Major Fiaschi. There could be no doubt that the training the Army Medical Corps had received at the hands of Colonel Williams had stood it in good stead, and the success had in a great measure been brought about by this preparedness. While honoring those who had served we ought also remember those who could not go themselves but who sent their sons, Dr. Rundle, Dr. Watson, Dr. Mackellar and Dr. Fiaschi. Although not a native born, he felt that he could not do too much for his adopted country. He thanked them again for their kindness.

Major **Eames** said he belonged to the awkward squad, and as he had to respond to another toast he would simply thank the members for their kindly feeling. They were all proud of being attached to the N.S.W. A.M. Corps and the great anxiety was to represent the State properly.

Major **Perkins** thanked those present for the expression of good will extended to the medical officers of the Army Medical Corps. Before we left we were told we had a lot to learn. We found that the greatest trouble was to learn how not to do things. The N.S.W. A M. Corps had gained approbation. The members of the corps had individuality, and the hearty co-operation of the whole of the men must be laid at the feet of Colonel Williams. When we arrived at the Cape we were a source of curiosity. Miss Olive Schriener wanted to know what manner of men these 200 were. She was informed, that if required, Australia could send 10,000 men—and, as a matter of fact, Australia had sent double 10,000. On one occasion he (Major Perkins) had had to exercise all the ingenuity he possessed to get himself out of a very tight corner. With reference to the Nursing Sisters who went to South Africa, nothing but praise could be given to them for their work. He desired to thank those present for their kindness in the welcome home.

Capt. **Edwards** said he did not expect to be called upon to make a speech, but desired to thank them for their reception, and no doubt that many who were welcoming them this evening would have done quite as well as they had done. He would just like to say that it was not always the man who was most heard of who did the best work. At any rate, no man could be accused of not having done his duty. The success of the N.S.W. Army Medical Corps was entirely due to the organisation of our absent colonel. The training which he (Dr. Edwards) got for the three years prior to going to South Africa stood him in good stead on one particular occasion. When about to enter Pretoria with the victorious army he was ordered back with a bevy of sick, much to his disgust. No doubt, the man who guards a railway and never fires a shot does his duty just as much as the man who was mentioned in the dispatches. No other nation could have done the same work as was done by England in this great war, and any nation desirous of fighting the old hen must also reckon with the chickens.

Dr. J. A. **Beattie** proposed the toast, "Our absent colleagues at the seat of war." Mr. Chairman and gentlemen,—I have to express my thanks for the privilege of proposing to this distinguished assembly the toast of our absent colleagues at the seat of war. We have listened with unflagging interest to the soul-stirring incidents—the hair-breadth 'scapes—the battles, sieges, fortunes that have been so triumphantly passed by our returned medical warriors. Our gathering here to greet them with our hearty welcome home, attests to our appreciation of their chivalry and self-sacrifice. From our personal acquaintance we can form some estimate of the high motives of patriotism which prompted them to sever themselves from all a man holds dear in this world—home and kindred—it might have been for ever, and when the Empire called to cast to the winds all sordid considerations of personal ambition and of gold in vindication of the glorious cause of British paramountcy in South Africa. If, as Ruskin observes, the ordinary soldier wins our esteem, not because his profession is to take away life, but because he is always prepared to yield up his own, how much more noble is the sphere of action of the medical officer accompanying the forces on the battlefield—in the front of every danger—in equal readiness to die with those around him—*not* for the *destruction*, but for the *saving* of human life. What a pardonable pride, then, must be ours in the reflection that we are professional brothers of our hero guests present, and also of those absent confreres now braving the perils of flood and field—of the imminent deadly breach—the horrors and privations of fell disease, of the sword and the bullet, in upholding the flag of the Empire in distant lands. But that it were suggestive of the academical essay, or of the familiar presidential address, we might in passing for a moment dwell here with complacency upon the proud pre-eminence of our noble calling, as we stand upon the threshold of this twentieth century. There was a time indeed when it was otherwise. Of the conventional sisterhood, Divinity Law and Physic, *we* once were the least considerable. But the old order has changed, old statute books have ceased to relegate us to the mechanical ranks of barbers, blisterers, and phlebotomists, while in such pages may yet be found some such uncomplimentary references to our sister profession of the Church, as I was amused at reading a few days since, namely—that but two classes in the community were excluded from senatorial honors—criminals and—clergymen! and further, that the privilege of free passage through the toll-bars was exclusively restricted to clergymen, asses and manure carts! Seriously, compared with Divinity as a profession, the potentialities of medicine are immense. At a period when ancient dogmas and formularies are frost-bitten and shrivelled by the chill disregard of unsympathetic men, and by the more aggressive challenge of derisive iconaclasts—when the major force of a marvellous series of physical scientific discoveries seems at least for the hour to ill harmonize with old time doctrines and hoary traditions—*we* who wince not under the fierce light of a higher criticism—*we* who are fortified in our mission of humanity by each amplification of knowledge, from whatever source arising—*we*—although the contrary is frequently and falsely asserted of us—are prominent in yielding a generous recognition to the domain of morals; as we claim to be practical exemplars of the highest cult of ethics, reverentially following the hallowed footsteps of the altruist of all time of whom in sublime simplicity it is written: "He went about doing good." As to the avocation of Law, it seems to me the *Depositum Legis* stands in line with the *Depositum Fidei*. Its basic principles are immutable, *It* also is non-progressive and accommodates not itself to evolutionary expansion as do the science and art of medicine. The Röntgen rays are inapplicable even in the divorce court. The sane mind in the sane body—with which it is our province to concern ourselves—can but keep on interpreting that which has been enacted by legislators of extinct civilizations, back to the very dawn of human society. Thus do we find reference to the codes of Lycurgus, Justiman, or Napoleon, the Mosaic Law, and the mythical edicts of the Medes and Persians. The future, then, is not—as it has been in the past—for Divinity, neither shall it be for Law. It belongs most especially to us, and the trend of modern philosophy is to raise through the coming ages our glorious profession to the hierarchy of mankind. Some of us present shall, no doubt, remember an interesting enumeration of some of the compensations for the calamity of the present war by an able writer in the *Pall Mall Gazette* recently. The general international consequences, immediate and remote, of our participation in the South African campaign, I shall not, of course, attempt to advert to here. I may, however, be permitted to reiterate the statement that this war, so lamentable in some of its aspects, and involving such stupendous issues, has at least afforded us the opportunity of proving the valour and stamina of our Australasian contingents, our virtue and our worth as a factor in the solidarity of the Empire from which we have sprung, while it flings into bold relief the filial attachment, the whole-hearted loyalty, and the self-forgetting devotion of all good citizens of these states and of none more emphatically than of our own fellow professionals. To these, then, our absent colleagues, who are yet ministering to His Majesty's troops at the seat of war—our dear friends, in the best sense of that sacred word—who share with us the same ideals of duty, who are heirs of the same destiny, and co-labourers in the same exalted sphere, who are present with us in spirit here to-night, though in the Pauline figure they are absent in the body, wherever they may be this moment resting their wearied frames, by the camp fires on the arid plains of South Africa, or away in far off China, to each and all of them, and to their safe return, we shall fill the bumper fair. But, alas ! that among those absent ones who so gaily spoke their last adieux, and who but a little time since sallied forth in the full vigor of lusty life and the glamour of martial panoply, there be some whose hands we may never grasp again, and who sleep their last long sleep afar from kith and kin. If, as Shelley so truly sings, "Our sweetest songs are those that tell of saddest thought," where shall words be found sweet enough to express that saddest thought of all—of our brothers who have untimely fallen in these wars. One of their manly forms and kindly voices we shall not soon forget. The true-hearted friend, the capable physician, the buoyant companion, the courteous and cultured gentleman—

> "Lightly they'll talk of the spirit that's gone,
> And o'er his cold ashes upbraid him :
> But little he'll reck if they let him sleep on
> In the grave where a Briton has laid him."

Peace be to the memory of our late fellow-citizen, James John Steel, and may I add the name of an old and revered teacher, Sir William Stokes. We are reminded by Seneca that the fortune of war is ever doubtful, but none of us can have any misgiving that the term of our well won victory comes apace. Let us hope for a speedy end, when the palm branch of peace shall flourish, and the blood-dyed laurels decay ; when the murderous bullet of the brutish, treacherous Boer shall no longer be sped with cruel aim from kopje and ambuscade to pierce the gallant bosom of our young British soldiers. And in the time to come, when the reverberations of artillery shall have died away among the mountains, the baleful glare of the battle torch shall be quenched, and the clatter of the war steed's hoof shall cease along the veldt ; when the silent stars shall steal out upon the cloudless night and passing winds sigh their requiem over their lonely graves—then as now shall we foregather in their honour, and drink a deep measure to our absent colleagues.

Dr. **MAGUIRE** sang, "Lo! My Courage."

Major **EAMES** thanked those present, very heartily, for their kindness. The Army Medical Corps was far from perfect, indeed, for a number of years it had to jog along without much assistance from the medical profession generally. At this war the mortality had been about 14,000, of these, about 4,000 died of wounds. It was not to be expected that arrangements for the treatment of the sick and wounded would be complete, when the nation was suddenly called upon to provide for 240,000, and was only prepared to deal with 60,000. To send an army of this size to a country where sanitary science was unknown was a tremendous undertaking, and what he would advise was, during peace to teach the soldier not to drink water unless it was sterilised, this was the only way to lessen sickness among the troops. Again he thanked them on behalf of their absent comrades.

Capt. **MORGAN MARTIN** said that too much praise could not be given to their respected and revered chief Colonel Williams. What made him (Capt. Martin) go to the war was the remarks of Colonel Williams that the parades here were only to be looked upon as preparation for the real business later on. The N.S.W. Army Medical Corps had been commended by Lord Roberts, and Colonel Williams after being only a short time in South Africa was appointed Principal Medical Officer to one of the largest divisions of the British Army, numbering about 30,000. He was proud that he had been allowed to represent this State as one of the officers of the Army Medical Corps, and he would ask them to remember Capts. George and Joseph Marshall, Lieut. Dick, and Lieut. Horsfall who were still in South Africa.

Dr. **GRAHAM** (who had taken the Chair owing to Dr Sydney Jones leaving) said that that day he had received a cheque for £1000 from the Hon. Dr. Mackellar, M.L.C., as a donation towards the Prince Alfred Hospital, the only stipulation being that any man who had served in South Africa should have the right of occupying the bed thus provided.

HUDSON'S "EUMENTHOL" JUJUBES (Registered) are a Gum Jujube containing the active constituents of well-known Antiseptics, Eucalyptol, Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-Borate of Sodium, etc., and exhibit the antiseptic properties in a fragrant and efficient form. Sold by all chemists, tins 1s. 6d. Are Antiseptic, Prophylactic, reduce Sensibility of Mucous Membrane.

Mr. W. A. Dixon, F.I.C., F.C.S, Public Analyst of Sydney, after making exhaustive tests, says : - "There is no doubt but that "Eumenthol" Jujubes have a wonderful effect in the destruction of bacteria and preventing their growth. . . . I have made a comparative test of "Eumenthol" Jubjues and Creasote, and find that there is little difference in their bactericidal action."

DR. REUTER E. ROTH has resumed practice after his return from South Africa. He informs us that he has decided to give up general practice, and devote his time entirely to medical gymnastics and massage for the treatment of spinal curvatures and other abnormalities due to muscular debility.

REPORT OF THE ANÆSTHETIC COMMITTEE.

THE report of the Anæsthetic Committee of the British Medical Association is just to hand. As is well known, the committee was appointed in 1891 "to investigate the clinical evidence with regard to the effects of anæsthetics upon the human subject, and especially the relative safety of the various anæsthetics, the best methods of administering them, and the best methods of restoring a patient in case of threatened death."

Excellent reviews of the report have already appeared in the *British Medical Journal* of February 23rd, 1901, by Mr. George Eastes, M.B., F.R.C.S., President of the Metropolitan Counties Branch of the British Medical Association, and Dr. Augustus, D. Waller, lecturer on physiology at St. Mary's Hospital Medical School. We have noticed, too, in the *Philadelphia Medical Journal* of March 30th, 1901, a lengthy editorial comment on the subject, and a leading article in the *British Medical Journal* of March 16th, entitled "The Method of Surgical Anæsthesia."

The report consists of a series of tables more or less complicated representing the results of observation in 25,920 administrations of anæsthetics of all varieties. Here there were 13,393 cases of chloroform, 4,595 of ether, 2,071 of "gas and ether," and 2,911 of nitrous oxide. The other administrations were of mixtures of the more rarely used forms of anæsthetics.

Cases are then classified as to the behaviour of the patient under the influence of the anæsthetic agents, and are divided into uncomplicated cases, meaning that nothing unusual occurred during the administration, and complicated wherein slight trouble, anxiety, danger, or death occurred. In the following tables the ratio of cases showing these various degrees of complications to the total number of administrations of the various anæsthetics is worked out. These various anæsthetics are those mostly in use, chloroform, ether, nitrous oxide, and mixture of the two latter showing the largest totals; in addition, however, the occurrence of complications is mentioned in cases fewer in number where other mixtures are used.

It is shown that in all the administrations from 96 to 99 per cent. showed no complications. The greatest proportion of uncomplicated cases, *i.e.*, 99·832 per cent., occurred with the use of nitrous oxide mixed with oxygen, and the smallest, 94·23, with ether followed by chloroform. Ether and chloroform, from this investigation in their administration, show uncomplicated cases in 96 to 97 per cent. roughly; in this particular there is nothing to choose between them. Further analysing the report, it would appear that roughly 3 per cent. of the cases showed complications, *i.e.*, 612 cases out of the total number of recorded administrations; of these, 340 were chloroform, 126 ether. The gravity of these cases of complication is much more in chloroform cases than in ether cases. It is seen that means of restoration had to be used and danger was present six times oftener under chloroform than under ether, whilst death occurred sixteen times under chloroform and four times under ether, *i.e.*, four to one. All these particular cases of minor and major complications are further analysed in the report, and the influence of other factors, such as season, time of day, operation, and general state of the patient, are investigated

Statistics on methods of administration show that notes were taken in this particular on 20,696 cases; also that chloroform was administered in the majority of cases upon a towel, lint, or Skinner's mask; in ether cases Clover's method, with Clover's inhaler, was almost universal. Particulars about the quantity, time taken, etc., in administration of the various agents are given, and then follows a comprehensive table of the phenomena recorded in the complicated cases. The most important of these are referable to the circulatory and respiratory systems, and then these phenomena are recorded with differing frequency under different anæsthetics. The conclusions from these statistics are very significant and important. After studying the evidence in connection with after effects, means of restoration, etc., the cause of deaths in connection with the use of anæsthetics is dealt with, and particulars of cases mentioned; and in this, evidence is in favour of ether, as the report runs, "Of the ether deaths not one is held to be due entirely to the anæsthetic."

The above may perhaps be looked on as a rough digest of the ground gone over by the Committee, and evidence derived from records. Conclusions are then drawn up in 35 sections, under certain headings which are appended.

CONCLUSIONS.

From a careful study of the whole of the facts at their disposal the sub-committee that, owing to (1) the large number of factors in the problem, and (2) the personal equations of the numerous recorders, it is impossible to arrive at uniformly satisfactory statistics on the several points submitted for their consideration.

The following conclusions however appear to be qualified :—

Relative Safety of the Various Anæsthetics.

1. The relative safety of the various anæsthetics may be gathered from the statistic tables in the report. When only those cases of danger which were held to be due entirely to the anæsthetic are considered the following instructive figures are obtained, further emphasising the danger of chloroform as compared with ether.

Cases of danger (including deaths) considered to be due entirely to the anæsthetic :—

	per cent.
Under Chloroform, 78, giving a danger rate of	0·582
„ A.C.E. Mixture, 1, giving a danger rate of	0·147
„ Mixture of Chloroform and Ether, 2, giving a danger rate of	0.478
„ A.C.E. Mixture followed by Chloroform, 1, giving a danger rate of ...	1·694
„ Chloroform preceded by Ether, 5, giving a danger rate of	2·002
„ Chloroform, followed by Mixture of Alcohol, Chloroform and Ether, 1, giving a danger rate of	0·036
„ Ether, 3, giving a danger rate of ...	0·065
„ Gas and Ether, 2, giving a danger rate of	0·096
„ Ether preceded by Chloroform 1, giving a danger rate of	0·480
„ Ether, preceded by A.C.E., 0, giving a danger rate of	——
„ the Chloroform group of anæsthetics (addition of the first 6 headings above), 88, giving a danger rate of	0·584
„ Under the Ether group of anæsthetics (addition of last 4 headings above), 6, giving a danger rate of	0·085

2. Although (excluding nitrous oxide) ether may be accepted as the safest routine agent, certain circumstances determined by the state of the patient, the nature of the operation, etc, may render the use of some other anæsthetic or combination of anæsthetics both safer and easier.

The Best Methods of Administration.

3. No method of administration of chloroform is free from danger, but an examination of the complicated cases appears to show that the occurrence of danger depends largely upon the administrator who employs any particular method.

4. No conclusion from the evidence before the Committee as to the best method of administration of ether and "gas of ether" is possible.

5. The data warrant the conclusion that the A.C.E. mixture should not be given from a closed inhaler (*e.g.* Clover's). This conclusion applies to all mixtures containing chloroform (*vide* anæsthetic No. 5, p. 94).

6. As regards the rate of use of the various anæsthetics, no conclusions other than those in the section on "Quantity of Anæsthetic Used," p. 94, can be offered.

Best Method of Restoration.

7. The Sub-Committee are unable from the material at their disposal to draw any conclusion upon this point.

Clinical Evidence Regarding Anæsthetics Generally.

8. Anæsthetics are more commonly associated with complications and dangers in males than in females.

9. Excluding infancy, and taking anæsthetics collectively, the complications and dangers of anæsthesia increase *pari passu* with advancing age.

10. Anæsthetics are notably more dangerous in proportion as the gravity of the patient's state increases. (The conclusions arrived at in the section on "Pathological States," p. 76. are extremely instructive, and should be referred to in this connection.)

11. Danger to life is especially likely to be incurred at early periods of the administration of anæsthetics, which the tendency to less grave complications increases directly with the duration of anæsthesia.

12. The tendency for complications, dangerous and otherwise, to occur, increases *pari passu* with the gravity of the operation.

Clinical Evidence Regarding Chloroform.

13. Chloroform is about twice as dangerous in males as in females.

14. Chloroform is most dangerous during early infancy, and after thirty years of age; least so from ten to thirty years of age.

15. In conditions of good health chloroform is very much more dangerous than other anæsthetics. In grave conditions chloroform still remains the least safe anæsthetic, but the disparity between it and other anæsthetics is far less marked than in health.

16. When danger occurs under chloroform, whatever its exact nature may be, there is abundant evidence that in a large proportion of cases the symptoms that are observed are those of primary circulatory failure.

17. Imperfect anæsthesia is the cause of a large number of cases of danger under chloroform.

18. Vomiting during anæsthesia, which may lead to danger, seems to be more frequent under chloroform than under other anæsthetics.

19. Struggling is very much more frequent in the complicated cases under chloroform than in the uncomplicated, and this phenomenon must therefore be regarded as a source of grave danger under chloroform.

20. The tendency for circulatory complications to appear increases directly with the relative amount of chloroform in the anæsthetic employed.

21. While vomiting is more common after administrations of ether, severe and prolonged vomiting is more common when chloroform has been used.

22. Circulatory depression following anæsthetics is more common after chloroform than after ether.

23. While the respiratory complications of anæsthesia as a whole are of equal frequency under the ether and chloroform groups respectively, yet those that occur under ether are mostly of a trifling and transitory nature, while those that occur under chloroform are more grave and persistent.

CLINICAL EVIDENCE REGARDING ETHER.

24. Under ether the complications of anæsthesia are more frequent with males than with females, but with the former they are generally slight, ether being rather more dangerous with females than with males.

25. Ether, where employed throughout or preceded by nitrous oxide gas or by the A.C.E. mixture, is singularly free from danger in healthy patients.

26. Minor troubles in administration due to laryngeal irritation and increased secretion are more common under ether and "gas and ether" than under chloroform and its mixtures.

27. Struggling occurs more frequently with ether when given alone than with other anæsthetics, but it rarely leads to danger.

28. After-vomiting is more common with ether than with other anæsthetics, but it is usually transient.

29. Bronchitis is much more common as an after-effect of ether than of chloroform.

30. With "gas and ether," as with ether, dangers are more common in females, although complications are more frequent in males.

CLINICAL EVIDENCE REGARDING MIXTURES AND SUCCESSIONS OF ANÆSTHETICS.

31. The A.C.E. mixture in most of the statistical tables holds an intermediate position between chloroform and ether.

32. The A.C.E. mixture is more dangerous in males than in females, but not to such a marked degree as is chloroform.

33. The administration of ether antecedent to chloroform does not abolish the possibility of chloroform dangers.

34. The various mixtures and successions of anæsthetics were recorded too infrequently to justify definite conclusions.

GENERAL CONCLUSION.

35. From the evidence before the subcommittee, they are convinced that by far the most important factor in the safe administration of anæsthetics is the experience which has been acquired by the administrator.

In many cases the anæsthetisation completely transcends the operation in gravity and importance, and to ensure success, particularly in these cases, it is absolutely essential that an anæsthetist of large experience should conduct the administration.

REVIEWS.

DISEASES OF THE THROAT AND NOSE: By De Havilland Hall and Herbert Tilley. Second edition. H. K. Lewis, Gower Street, London.

Of late our American cousins have been much more prolific in books on the above subjects than our brethren in the old country, and it is refreshing to turn to a work on the diseases of the nose and throat by two distinguished specialists of British nationality.

Acting on a hint contained in the preface, we turn to the section on diseases of the accessory cavities, which we find treated in a most satisfactory manner. The authors are unable to agree with certain continental authorities as to the almost uniform dependence upon sinus disease of atrophic rhinitis, although the relation between the two affections is more constant than one formerly suspected.

In exploration of the maxillary antrum, the writers favour, in the first instance, puncture through the alveolar process, reserving the more radical procedure of making a large opening in the alveolar fossa and a counter opening in the lower nasal meatus allowing former to close, for cases in which the minor operation is unsuccessful.

Not the least valuable part of the work is that pointing out the anatomical relations between the ostiums, maxillare, and the nasal orifice of the infundibulum. We can strongly recommend this work to the general practitioner, as well as to those specially interested in the diseases of the nose and throat.

HERNIA. By W. McAdam Eccles; published by Baillière, Tindall and Cox, p.p. 231; price, 8s. 6d.

It is not altogether easy to present an exact appreciation of this work. The author disarms criticism by saying that it is not intended as a monograph, but rather as a handbook of treatment; and yet, at the same time in many respects, there is a good deal of the exhaustive monograph about it. It is not, however altogether satisfactory. The accounts of the various operations are meagre, and the author's criticism of them verges on the obvious, while nothing is said about Kocher's excellent new operation, or Coplin Stinson's new method, and Lockwood's operation—which, in a volume of this size, well deserves mention—is not referred to.

These are, however, small faults in an able work. (By the way, the very first sentence, "a hernia is the protrusion of any viscus from the cavity within which it is normally contained;" it is quite incorrect. Hernia cerebri and hernia testis differ in every respect from inguinal hernia; and Eccles' definition must be relegated to the limbo of the forgotten past). The scientific parts of his subject are well, but shortly written, but the treatment is, on the whole, excellently done. The section on trusses is the best we remember to have read, and for those who see many herniæ is quite indispensable. The operative part of the work is less satisfactory. Eccles clearly considers that the first treatment of hernia is by truss; but it will occur to most people who have followed the tendency of thought in this subject, that trusses are now to be considered rather as appliances for wear in cases where operations have failed, or where the patient for any reason refuses or is unfit for operation. He states the requirements for radical cure as follows:—"Removal of the entire neck of the sac flush with the parietal peritoneum; obliteration of the natural depression in this layer of the peritoneum at the region of the deep abdominal ring; restoration of the inguinal canal"—restoration to what? Those who believe, as the present writer believes, that the normal inguinal canal is a faulty arrangement, will not be disposed to agree with this last postulate.

The operation advised is as follows:—Incision straight down to and through the external oblique aponeurosis; clear sac; empty it; tie its neck high up; cut it off. If the arcuate fibres are healthy, do not stitch the ring; if unhealthy sew the internal oblique and transversalis to poupart, leaving the cord *in situ*. Eccles uses silk sutures, with which most Australian surgeons will probably not agree.

Altogether the book is well worth reading, but for a future edition some alterations may well be suggested. These are:—A fuller account of the treatment of doubtful intestine instrangulation; a fuller account of operative measures, and a more thorough criticism of them; lastly a bibliography, or at any rate a list of references.

As for the illustrations, they are far and away the best of hernia that have ever been published.

MILITARY INTELLIGENCE.

QUEENSLAND.—Rowe, Capt. Edward R., of Mackay, Army Medical Corps, 6th Queensland Contingent.

WEST AUSTRALIA.—Reid, Fredk. Bentley, Lieut. Medical Staff.

WAR HONOURS.

NEW SOUTH WALES.—Colonel W. D. C. Williams, C.B.; Major T. H. Fiaschi, D.S.O.; Major R. E. Roth, D.S.O.; Major A. E. Perkins, D.S.O.; Captain T. A. Green, D.S.O.

VICTORIA.—Sir Thomas N. Fitzgerald, K.C.B.

SPEECH DEFECTS CORRECTED, LIP READING FOR THE DEAF, GERMAN (ORAL) SYSTEM FOR DEAF MUTES, Children and Adults. Appointments by letter. For terms, &c., **MISS ADDERLEY**, Room 50, Vickery's Chambers, 76 Pitt Street, Sydney.

MEDICAL NOTES.

DR. GWYNNE HUGHES, who acted as returning officer for the West Sydney electorate at the recent Federal election, was presented with a handsome illuminated address by the deputy returning officers and poll clerks at the Manchester Unity Hall, Castlereagh Street.

Dr. J. B. Wilson, of Robertson, has left for New Zealand. He was presented with a gold pendant by the residents of the district.

Dr. Kingsbury, of Katoomba, was presented with a purse of sovereigns; he goes to Sydney. Dr. Watkins has taken his practice.

CHANGE OF ADDRESS, ETC.

BRENNAND, Dr. H. J. W., has commenced practice at 203 Macquarie Street, Sydney.

BRUEHL, Dr. S., formerly of Hawker, S.A., has commenced practice at Broken Hill, N.S.W.

DURACK, Dr. M. J., late of Sydney, is now practising at Marble Bar, W.A.

HARVEY, Dr. Wm., has left for Lake Way, W.A.

HAWTHORNE, Dr. E. S., formerly of Georgetown, Q., has succeeded to Dr. Fenton's practice at Mudgee, N.S.W.

HOLT, Dr. A. C., has succeeded to Dr. Tilley's practice at Warwick, Q.

KINGSBURY, Dr. Jas., late of Newtown and Katoomba, N.S.W., has commenced practice at Moffitt Chambers, Elizabeth Street (near Liverpool Street), Sydney.

MCCARTHY, Dr. C. D., has succeeded to Dr. Collins' practice at Peak Hill, N.S.W.

ROGERS, Dr. W. H., has removed from Greta to Ashfield, near Sydney.

SANDES, Dr. F. P., late of Prince Alfred Hospital, has commenced practice at Newtown, near Sydney.

SHUTER, Dr. R. E., formerly of Port Augusta, S.A., has commenced practice at Camperdown, Vic.

SMITH, Dr. J. A. R., late of Adelaide, has started practice at Morwell, Vic.

WALCH, Dr. C. N. C., has left Hobart to attend as Government representative the British Congress on Tuberculosis, to be held in London in July next.

MEDICAL APPOINTMENTS.

The following Medical Appointments are announced:

Anderson, T. L., M.B. Melb., to be Special Medical Officer for Plague at Fremantle, W.A.

Blackburne, G. H. S., M.B., Ch.B. Melb., to be Special Medical Officer for Plague at Perth, W.A.

Blick, Dr. G., to be District Medical Officer and Vaccinator at Broome, W.A., *vice* Dr. H. Vines, resigned.

Campbell, A., M.R.C.S., L.R.C.P., to be Vaccinator at Young, N.S.W.

Evered, A. C., L.R.C.P. *et* R.C.S. Edin., to be Special Medical Officer for Plague at Albany, W.A.

Featherstonhaugh, Chas., M.B., as Vaccinator at Corryong, Vic.

FitzGerald, Jas., M.B., M.S. Edin., as Vaccinator at Kalangala, N.Z.

Godfrey, P. J., L.R.C.P. Edin., to be Health Officer at Port Strahan, also Medical Officer at Port Macquarie, Tas.

Harper, G. C., M.B., to be House Physician at Perth Public Hospital, *vice* Dr. G. H. S. Blackburne, resigned.

Hayward, Fredk. D., M.R.C.S., as Vaccinator at Ararat, Vic.

Henderson, Jno. L., M.B., to be Health Officer at North Ovens, Vic.

Hendry, A., M.B., Ch.B., late of Port Chalmers, has been appointed Resident Surgeon to the Southland Hospital, Invercargill, N. Zealand, *vice* Dr. MacLeod, resigned.

Hodge, W. T., M.R.C.S., L.S.A., D.P.W., to be Vaccinator at Clermont, Q.

House, F. M., M.R.C.S. Eng., L.R.C.P. Lond., to be Medical Officer, Botanist, and Naturalist in the Kimberley Expedition, W.A.

Ingoldby, F. J., M.R.C.S. Eng., L.R.C.P. Edin., to be Quarantine Officer at Albany, W.A.

Leethbridge, R. W., M.B. *et* Ch.M., to be Medical Superintendent of the Sunbury Lunatic Asylum, Vic., *vice* Dr. J. A. OBrien, transferred.
Loughnan, E. B., R.C.S.I., K.Q.C.P.I., to be Medical Officer and Vaccinator at Collarendabri, N.S.W.
Macdonald, Geo. B. D., M.B., to be Vaccinator at Branxholme, Vic.
Morris, Ed. W., M.R.C.S., to be Assistant Health Officer at Port Adelaide, S.A.
Pomare Maue, M.D., to be Health Officer for the Maoris, Wellington, N.Z.
Ponder, C. F., M.B., Ch.M., to be Vaccinator at Mathinna, Tas.
Robertson, Wm., M.R.C.S. Eng., to be Vaccinator at Tapanui, N.Z.
Robinson, T. W., M.B., Ch.M., M.D., to be District Medical Officer at Albany, W.A., and Vaccinator for Districts of Albany, *vice* Dr. Ingoldby.
Roseby, Edmund R., M.B., to be Resident Medical Officer at Adelaide Hospital, S.A.
Stang. Thos., L.R.C.P., to be Health Officer for Shire of Echuca, Vic., and Acting Vaccinator at Rochester, Vic., in the absence of F. E. Littlewood, M.B., on leave.
Simmons, Rich. Butler, M.B., to be Medical Officer at Clermont, Q.
Steell, John, M.B. *et* Ch.M., to be Medical Superintendent of Ballarat Lunatic Asylum, *vice* Dr. R. W. Leethbridge, transferred.
Stenhouse, Andrew, M.B., B.S. Univ. N.Z., to be Vaccinator for Blacks' District, N.Z.
Straughman, T. N., L.R.C.S., to be Vaccinator at Avenal, Vic., *vice* T. Gray, M.R.C.S., resigned.
Valentine, Thos. H. A., M.R.C.S. Eng., D.P.H., to be Health Officer Wellington District, N.Z.
Vallack, A. S., M.B., Ch.M., to be Medical Officer and Vaccinator at Bowral.
Verco, Sydney M., M.B., to be Resident Medical Officer Adelaide Hospital, S.A.

NEW MAGISTRATES.

Griffiths, Ernest Ed., L.R.C.P. Edin., M.R.C.S Eng., Blayney.
Johnson, Chas.,, M.D., M.R.C.S.E., Parramatta.
Mead, Rivis, M.B., etc., Quirindi.
O'Flanagan, Andrew Joseph, M.R.C.S. Irel., Junee.
O'Shaughnessy, Michael J., L.R.C.P. Edin., L.R.C.S. Edin., Albury.
Shaw, Frederick C. S., M.B., etc., Emmaville.

MEDICAL RESIGNATIONS.

Butler, A. G., M.B., etc., as Medical Officer at Hopetoun, Q.
Fisher, T. C., M.D., as Medical Officer and Vaccinator at Bowral, N.S.W.
Halford, A. C. F., M.D., as Medical Officer at Clermont, Q.
Mackenzie, J. H., L. *et* F. *et* L. M.R.C.S. Edin., as Medical Officer at Port Macquarie, Tas.
Marks, E. G. K., M.D., as Medical Officer at Herberton, Q.
Rhodes, Arthur, M.B., as Vaccinator at Branxholme, Vic.
Smeal, Jas., L.F.P.S., as Vaccinator at Ararat, Vic.
Stackpoole, A. R., L.R.C.P., as Vaccinator at Corryong, Vic.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

THE following persons have been duly registered as legally qualified medical practitioners in their respective states :—

NEW SOUTH WALES.

April 10th.

Blue, Archibald Irwin, M.B. Univ. Syd. 1901.
Garde, Henry Lea, M.B. Univ. Syd. 1901.
Greenham, Eleanor Constance, M.B. Univ. Syd. 1901.
Guthridge, John Smith, Lic. R. Coll. Phys. Edin. 1899 ; Lic. R. Coll. Surg. Edin. 1899 ; Lic. Fac. Phys. *et* Surg. Glasg. 1899.
Lee, Harry Herbert, M.B. Univ. Syd. 1901.
Marr, Gordon William Singer, M.B. Univ. Syd. 1901.
Thomas, George Bowen, M.B. Univ. Syd. 1901.

For Additional Registration.

Cleland, John Burton, M.Ch. Univ. Syd. 1900.

May 8th.

Buckley, Edward William, M.B. Univ. Melb. 1900.
Cade, Frederick Joseph Richard, L.R.C.P. Edin. 1898, L.R.C.S. Edin. 1898, L.F.P.S. Glasg. 1898.
Davies, Reginald Laidlaw, M.B. Univ. Syd., 1901.
Esslemont, John Ebenezer, M.B., Bac. Surg. 1900, Univ. Aberd.
Morton, Selby Woodhouse, L.R.C.P. Edin. 1900, L.R.C.S. Edin. 1900, L.F.P.S. Glasg. 1900.
Prior, Guy Percival Undertown, L.R.C.P. Lond. 1898, M.R.C.S. Eng. 1898, L.S.A. Lond. 1895.
Phipps, John Hare, M.B. Univ. Lond. 1897, L.R.C.P. Lond. 1897 M.R.C.S. Eng. 1897.

Four applications were refused.

Unqualified persons registered under Clause 3, Act No. 70, 1900.

April 10th.

Herberts, Joseph.

*Under consideration by the Board.**

May 8th.

Cameron, George, Goondiwindi.
Gothelm, Johann, Howlong.

QUEENSLAND.

De Marco, Emilio, M.D., Ch.D. Univ. Bologna.
Ercole, Quinto, M.D , Ch.D. Univ. Bologna.
Holt, A. C., M.B. Univ. Syd.
Setzke, Edgar F., M.D. Univ. Griefswald.
Spark Sidney W., L.R.C.P. Edin., L.R.C.S. Edin., L.S.A. Lond.

Additional Qualification :

McDonald, Jas. E. F., B.S. Univ. Melb.

SOUTH AUSTRALIA.

Formby, Hy. A., M.B. Melb.
Leitch, Oliver, M.B. Melb.
Verco, Sydney M., M.B. Syd., M.S. Syd.
Webster, Edgar E., M.B., B.Ch. Melb.

Applications for Registration.

Manning, Jas. M. A., Lic. R. Coll. Surg. Edin.; Lic. R. Coll Phys. Edin. ; Lic. Fac. Phys. & Surg. Glasg., Auckland.
Briffault, Robt., M.B., Ch.B. Univ. N.Z.
Bett, Francis A., M.B., Ch.B., B.S. Univ. N.Z.
Cook, Sydney J., M.B., Ch B. Univ. N.Z.
Sale, Jno. B., M.B., Ch.B. Univ. N.Z.
Adams, Robt. N., M.B., B.S. Univ. N.Z.

BIRTHS, MARRIAGES AND DEATH.

BIRTHS.

BLACKALL.—On the 7th May, at her residence, Westbourne, Queanbeyan, the wife of Dr. Blackall, of a son.
COSH.—On the 21st April, at Leichhardt, the wife of J. I C. Cosh, M.B., Ch.M., of a daughter.
RUSSELL.—On the 30th April, at West Maitland, the wife of W. J. Russell, F.R.C.S.I., of a daughter.
VEECH.—On the 8th April, at her residence, Riddle Street, Molong, the wife of Dr. M. Veech of a daughter.
O'NEILL.—On the 18th April, at Mooroombah, Turramurra, the wife of Dr. W. H. O'Neill of a daughter.

MARRIAGES.

HOLT—TUSON—On the 10th April, at St. James' Church, by the Venerable Archdeacon Holt, assisted by the Rev. W. I. Carr-Smith, Dr. Arthur C. Holt, only son of the Venerable Archdeacon Holt, of Deniliquin, N.S.W., to Edith Mabel, third daughter of George Tuson, Esq.
ROBERTS—JONES—On the 27th March, 1901, at St. Peter's Church, Croydon, by the Rev. W. J. Roberts, Llewellyn William Roberts, M.B., Ch.B., M.R.C.S. Eng., L.R.C.P. Lond., of Cowra, N.S.W., youngest son of the late John Lloyd Roberts, of Melbourne, to Annie, eldest daughter of the late Arthur Jones, Camperdown, Victoria.
WASSELL—HOLE—On the 13th April, 1901, at All Souls', Quetta Memorial Cathedral, Thursday Island, by the Right Rev. the Lord Bishop of Carpentaria, Joseph Leathem Wassell, M.B., M.Ch. Sydney, second son of James Wassell, Esq., of Teneriffe, Brisbane, to Ethel Elizabeth, eldest daughter of the late Charles Hole, Windsor, and of Jane E. Hole, Iona, Manly.

DEATH.

JEFFERIS.—On the 25th April, 1901, at Tuggerah Lakes, James Eddington Jefferis, aged 40 years, eldest son of the Rev. Dr. Jefferis, of Adelaide.

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* Any reliable information regarding the names under consideration may be sent to the Hon. Sec. of the Branch, who will forward it to the proper quarter.

AUSTRALASIAN MEDICAL GAZETTE.

ORIGINAL ARTICLES.

NOTES ON A CASE OF STREPTOCOCCUS IN SPUTUM.

By John Thomson, M.B., Ch.M. Edin.,
Brisbane.

On the 12th April, F.D. presented himself and handed to me this letter: "Dear Thomson,—The bearer is, as you will see, suffering from an extreme spinal curve, as well as a lung condition which I fear is tubercular. If you think it will give him even a little ease, I wish you would send him to the best maker of spinal supports in Brisbane. You might also examine his sputum, and write to me as to whether you agree with my diagnosis."

F.D.'s history was given by his mother. When born his right arm was utterly powerless, and this condition was noticed before he was an hour old. He had congestion of the lungs (*sic*) when 8. He had inflammation of the lungs (*sic*) and was very severely ill for three weeks, when about 14½. (I could not ascertain which one lung, or whether both were attacked on the two occasions.) His spine began to curve when he was about 16, and the twisting continued about five years. The twisting stopped and the bones set about five years ago. About three or four months ago a slight cough appeared. About sixteen days ago he was taken to Dr. Ryan.

On examination, there was very excessive right scoliosis—a regular corkscrew spine, with a right angel-wing shoulder—conditions quite as extensive as those represented by the illustrations in "Treves's Surgery," Vol. II., pages 44 and 45.

What gave rise to the curvature it would be difficult to determine. Poliomyelitis is said to be an inducing cause; the powerless condition of the arm was most likely due to some injury at birth, but it may have been caused by a poliomyelitis during intra-uterine life. I have heard or read of such cases, although at present I cannot name my authority. The pulmonary congestions and inflammations referred to may, if they attacked the right lung, have produced such shrinkage or contraction of that organ that the costal arch, being unsupported, collapsed. Rickets may have been a predisposing cause, though hardly at his age; while muscular exhaustion may be responsible for the whole deformity, which is so extreme that the left side of the trunk has to be supported—braced up in fact—by the left hand resting on the ilium of the same side. Savage, the surgical instrument maker, made a light support, which appeared to give great relief.

On examining the lungs, whose movements were almost entirely controlled by the diaphragm, there seemed to be mischief at the right apex; there was a suspicion of dulness; slightly increased vocal resonance; a somewhat prolonged expiratory sigh, and a fine moist râle, and this was found in a thin wedge of lung which was sandwiched between ribs which could hardly be called curved, but were acutely bent upon themselves. Somehow I scarcely suspected tubercle; the lad was miserable enough looking, but it did not strike me he had the phthisic face, nor were his nails suspicious, they were well-formed and not of the clubbing type; his cough was very, very slight; there was really no expectoration, and he had no temperature.

I gave him a small sterilised flask and asked for some of his sputum, warning him it was not saliva I wanted, but something coughed up. The following day he returned with about a dram of glairy, semi-translucent mucus in the flask. Some of this I sucked up, and with difficulty, into one of the sputum tubes of a high-speed centrifuge, and whirled this for two or three minutes at a rate of about 10,000 a minute. On removing a portion of the centrifuged material, which I found to be particularly tough, and then staining it with carbol-fuchsin and methyl-blue, the microscope revealed an *embarras* of streptococci, in links and chains and whorls and entanglements; pus corpuscles; squamous epithelium; but no tubercle bacilli. Dr. Love, who kindly examined some of the sputum for me, noted the cocci but could discover no bacilli; and the Bacteriological Institute reported simply "No tubercle"!

The epithelial cells were large; more after the oral type, larger than those from the bronchioles, but not greater than what may be obtained from within the rima. Many of these cells were covered with streptococci; chains of cocci clinging to the cell walls; many of them were engorged with cocci which were found embedded in the protoplasm. It looks uncommonly like — but is not — phagocytosis. Metchnikoff's theory dealt only with the white corpuscles—the defence force of the blood stream. These are epithelial cells. Perhaps necrosed epithelium. And the query is: Which is the attracting party? Are the cells covered with an adhesive material which birdlimes the unfortunate cocci until such time as the amœboid action of the protoplasm can engulph them? Or do the cocci attack these cells, expecting to find a suitable growth-medium, and only discovering, when too late, they were accessory to their own destruction? For a careful examination shews that however they may proliferate *on* the cell, they become disintegrated *in* the cell. Evidently there is a something in the protoplasm which absorbs the cocci.

What is this streptococcus? Streptococci are suggestive of erysipelas, puerperal infections, septicæmia, etc., and yet here we have one wildly luxuriating, and yet giving rise to no marked morbid condition.

Monti, of Pavia, "On Modern Pathology," 1900, says: "According to some authors, the streptococci consist of three species (*s. brevis, s. longus*, etc.), but, as the differential morphological and biological signs are very slight, and their pathogenic properties are equal, the majority of bacteriologists hold that they are only varieties of a single species. The morphological characteristics of the streptococci is their arrangement in chains. These chains consist of round elements, arranged behind one another like the beads of a rosary. They have this arrangement both in the pus and in the cultures. Some varieties form chains of a few elements, others long rosaries more or less coiled on themselves. It has been judged that streptococci are more malignant than staphylococci, but in reality the former have a tendency to give rise to less destructive but more invading processes (187). They spread with great rapidity, following especially the channel of the lymphatics, and give rise to lymphangites, adenites, inflammations of the serosæ, and, when they invade the blood, they produce septicæmic forms (107). The streptococci certainly produce an albuminoid poison, which has positive chemotactic properties, that is to say, is distinctly pyogenic (96)."

In answer to my question, What is this streptococcus? It may be one of a kind which occurs in the mouth in normal conditions, and is without pathogenic properties when tested experimentally. Widal and Bezançon "found that a streptococcus, cultivated from the mouth, and which was non-pathogenic, became pathogenic when inoculated, and thereafter its virulence could be enormously increased by passing it through a series of animals." These observers also found that streptococci cultivated from the mouth of a smallpox patient were non-virulent, while those cultivated from the blood of the same patient, *post-mortem*, were highly virulent, the probability being that those in the blood had been derived from those in the throat. There does not, therefore, seem at present sufficient evidence for looking upon thsee two varieties as distinct species. It is sufficient to bear in mind that streptococci in the normal mouth are usually non-virulent, and grow in short chains. (Muir and Ritchie, 1897; page 156).

What, then, are the practical lessons?

1st.—That the diagnosis of pulmonary tuberculosis was neither proved nor disproved. While the presence of tubercle bacilli may be accepted as conclusive proof of phthisis, their absence even after two (and a second was made) or more examinations does not assert the opposite.

2nd.—When you ask for pulmonary expectoration, see that you get it. I daresay I did get it, but I very much fear it was mixed with some mouth or throat secretion other than saliva, and that this secretion is responsible for the streptococci, which, for the time being, are of a non-virulent variety.

3rd.—In carrying out bacteriological investigation, microscopical observation, however important, is insufficient and must be supplemented by cultivations, inoculations, and control experiments. Had these been conducted in this instance, doubt would have been eliminated, and the streptococcus assigned to its proper place in the pathogenic or non-pathogenic list.

4th.—The value of the centrifuge. Examinations of blood, sputum, urine, or other fluids are greatly simplified by its use. Time is astonishingly reduced, and organic or chemical changes due to delay are prevented.

To those of you who are photographers, I may add, I am vain enough to believe that these photographs of streptococci are quite equal to, if not better than, anything which has appeared in British textbooks. Owing to the blue of staining, to obtain the best results I used a deep orange screen—the complimentary of the stain—and this prolonged the exposure to ten minutes for the X500 and fifteen for the X1000; and to give you an idea of the labour involved, for these reproductions on paper and the lantern slides, although apparently the same, are printed from separate negatives, 61 plates have been used, one way or another, before satisfaction with the separate negatives was obtained.

Ten prints and as many lantern slides were shewn of streptococci in short links and in very long chains; also streptococci clinging to the *outside* of epithelial cells, and streptococci *within* the cells distributed throughout the protoplasm.

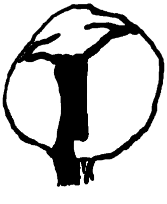
UNUSUAL AMOUNT OF CONNECTIVE TISSUE AROUND PERSISTENT HYALOID ARTERY; SIMULATING GLIOMA.

By J. LOCKHART GIBSON, M D. EDIN., BRISBANE.

THE eye which I am showing this evening was placed in 1 to 16 formalin immediately after enucleation, so that every coat and medium retains its natural position, enabling the globe to be bisected to show the vitreous *in situ* hardened to a transparent jelly. It was removed by me at the Brisbane Hospital for Sick Children from an orphan girl aged ten years, on account of a diagnosis of glioma of the retina.

To oblique illumination there was a suggestion of opacity in the posterior part of the lens; or of a peculiarly refractile opaque body immediately behind it in the vitreous.

To ophthalmoscopic examination the lens was clear, no red reflection could be obtained from the fundus, but from the surface of a body close behind the lens the peculiar yellowish-grey reflex was obtained, which is usually characteristic of glioma of the retina. To a high + glass the surface of the body seemed to correspond to that of a glioma. The appearance, indeed, was so characteristic that in spite of its surface lying so closely behind the lens, the possibility of the case being one of congenital peculiarity seemed too remote to justify unnecessary delay for purposes of observation. There was an absence of definite history.



Upon bisecting the eye after the formalin had hardened it, the appearance was such as would be expected if more than the entire breadth of the optic nerve had been prolonged forward through the centre of the vitreous to end in a thick expansion of opaque nerve fibres behind the posterior capsule of the lens. The point where the opaque white band in the vitreous had least breadth was where it joined the nerve.

The case is evidently one of persistent hyaloid artery surrounded by a very unusual amount of connective tissue, an amount which probably at no stage in the development of the eye would be normal Although cases have been recorded where the connective tissue expansion behind the posterior capsule of the lens was quite as thick as in this eye, I can find none where the band traversing the vitreous was so broad. The first appearance suggested, as I have said, the impossible condition of the optic nerve itself, being prolonged forward. The retina may be thinner than usual. No microscopic section has yet been made.

It is, of course, now evident that the eye which was not microphthalmic might have been left undisturbed, but if I again met a perfectly similar case, I should postpone enucleation only after explaining the possibly grave danger of delay. I find that several eyes have been removed under a similar misapprehension. The accompanying drawing is an exact reproduction of a tracing from the cut section of the bisected globe. It is an outline only, to shew the size and relations of the thick column of connective tissue, at one end apparently directly connected through the lamina cribrosa with the substance of the optic nerve at the other end expanding into a dense layer behind the position of the posterior capsule of the lens.

STATISTICS OF 1,000 CONSECUTIVE CASES OF LABOUR AT THE WOMEN'S HOSPITAL, SYDNEY.

By A. WATSON MUNRO, M.D, F.R.C.S. EDIN., HON. SURGEON, WOMEN'S HOSPITAL, SYDNEY.

WHILE engaged recently in collecting and arranging the records of work done at the Women's Hospital since its establishment in 1893, it occurred to me that a review of a large number of obstetric cases, in consecutive order, would be interesting to the profession, and also prove useful for comparison with statistics collected in other maternity institutions. The cases here considered have occurred in the two years ending 31st December, 1900. Records to the number of 30 have been dropped out on account of imperfect notes taken at the time. (These 30 do not include any fatal case, so that the mortality statement is not affected by the omission.) The round number 1,000 is chosen in order to facilitate the calculation of percentages.

The honorary surgeons on duty were Sir James Graham, M.D., S. H. MacCulloch, M.D., and the writer. Dr. Lucy Gullett, the present resident medical officer, has given me diligent assistance in the collection of these records.

TABLE OF 1,000 CONSECUTIVE CASES OF LABOUR.

Multiparæ, 668; Primiparæ, 332.

Presentation.	Frequency.	Position.	Frequency.	Mortality.		Average Duration of Labour. (2)				
				Fœtal.	Maternal.		Primiparæ.		Multiparæ.	
							Hrs.	Mins.	Hrs.	Mins.
Vertex	959	Occ.-Ant.	907	28	3 (1)	1st stage	12	4	7	56
		L.O.A.	*781*			2nd ,,	2	15	1	6
		R.O.A.	*126*			3rd ,,	...	26	...	26
		Occ.-Post.	52							
		R.O.P.	*42*			Total	14	45	9	28
		L.O.P.	*10*							
Face	3	R.M.P.	2	Nil	Nil					
		Unclassified	1							
Brow	2	R.F.P.	1	1	Nil					
		Unclassified	1							
Pelvic	28	Breech	23	5	Nil	1st stage	9	30	7	54
		L.S.A.	*12*			2nd ,,	1	41	...	56
		R.S.A.	*2*			3rd ,,	...	19	...	16
		R.S.P.	*4*							
		Unclassified	*5*			Total	11	30	9	6
		Footling	5							
Trunk	8	Unclassified	*8*	4	Nil					

(1) Eclampsia, 1; complete placenta prævia, 2. (2) These averages exclude all labours artificially terminated, with the exception of one or two manual deliveries of the after-coming head.

ABNORMAL CASES.

A few of the cases which departed from the natural course are perhaps of sufficient interest to be specially noticed.

Instrumental Cases (forceps). Of these there were 27 as follows:—

Delay in second stage	15
Persistent occipito-posterior position of Head	3
Deformed Pelvis	1
Anteversion of Uterus	1
Stiff Coccyx, from old fracture ...	1
Eclampsia	4
Placenta Prævia	1
Hæmoptysis, with exhaustion... ...	1

The case of deformed pelvis was E. T., a married primipara of 20. She had an angular backward curvature in the dorsal region, which caused the pelvis to have an erect position instead of the usual slope. The external measurements were: ***Interspinous***, 25 cm.; ***intercostal***, 20 cm.; ***external conjugate***, 25 cm.; internally, the promontory could not be felt, and the transverse was felt to be roomy. The woman was small (4 feet 5 inches), but these figures showed a capacious pelvis. Labour reached the second stage with little trouble, when she was artificially delivered of a dead fœtus. She subsequently became pregnant, and gave birth in a private home to a full time child also dead, and I had the opportunity of watching the early course of the accouchement. The fœtal head in the latter end of pregnancy rode above the pelvis, abutting on the lower left quadrant of the abdominal wall; the breech lay in the right side. This condition persisted for a considerable time, but before the first stage was completed a foot presented and the breech followed; in fact, version occurred spontaneously.

Embryotomy.—There were three cases: one of craniotomy, one of decapitation, one of perforation in a hydrocephalic fœtus.

Craniotomy.—M. M., age 31, M, 5-para, admitted January 15th, 1900; in labour, which had commenced on the 14th at 8 a.m. Delivery by forceps had been repeatedly tried at patient's home by her medical attendant, but without success. On admission, the os was fully dilated, head not engaged; there was marked antero-posterior contraction due to a bony projection on the sacral promontory; occipito-posterior position. Forceps in Walcher's position failing, Dr. Watson Munro performed craniotomy, delivering with the cephalotribe. Recovery uninterrupted.

Decapitation.—A. C., 11-para, M., age 45. Patient was admitted with arm presenting, and had been long in labour. P.V. shewed an impacted transverse presentation, R.A.A. position. Dr. S. H. MacCulloch decapitated with a pair of scissors and delivered the trunk; head was delivered with crotchet.

Induction of Premature Labour.—There were three cases, all undertaken on account of albuminuria, under which heading some notes of them will be found.

Albuminuria.—21 cases. (Cases with only a trace are not here recorded.) In three only of these did convulsions occur, and one (a convulsive case) died. In three cases labour was induced about the 28th week. Forceps were used in four cases.

One case of eclampsia of doubtful origin in the extern department is not included in the synopsis following, as only one seizure occurred, and the urine was not tested. In several patients the general condition was greatly improved and the albumen reduced, by admission before labour commenced, milk diet, and slight purgation with salines.

SYNOPSIS OF ALBUMINURIC CASES.

No.	Urine on day of Delivery.	Result.	Mode of Delivery.	Albumen disappeared.	Course of Case.
1	Albumen "solid"	R	Natural	11th day	Good recovery.
2	" ⅙	R	"	2nd day	" "
3	" ¼	R	"	11th day	" "
4	" ⅓	D	Forceps	Not	*Convulsions* persisted after delivery, six in all, with deepening coma and slighter convulsive movements. Pulse, 120; temperature reached 105°. Treatment by saline injections, chloral per rectum, morphine hypodermically. Died.
5	Amount 16 oz. Albumen ⅔	R	Induced labour	6th day	Labour induced 6½ months. Good recovery. Urine reached 60 oz. per diem during puerperium.
6	Albumen $\frac{2}{10}$ Amount very small	R	" "	16th day	Patient was admitted two weeks before parturition on account of anasarca, headaches, failing vision; albumen fell to $\frac{4}{10}$ths; labour then induced at 7½ months. Good recovery.
7	Albumen ¼ Amount 22 oz.	R	Natural	8th day	*Convulsions* did not occur till 18 hours after delivery; continued at frequent intervals for 24 hours, one seizure lasting six minutes. Good recovery.
8	Albumen ⅔	R	"	2nd day	
9	" ⅙	R	"	2nd day	
10	" $\frac{1}{9}$ Amount scanty	R	Induced labour	10th day	General œdema. 62 oz. per day was reached during puerperium.
11	Albumen ¼ Amount 8 oz.	R	Natural	2nd day	Amount reached 40 oz.
12	Albumen ⅓ Amount 10 oz.	R	"	2nd day	Good recovery.
13	Albumen ⅙ Sugar slight	R	"	Not	Slight trace of albumen when patient left hospital.
14	Albumen "solid"	R	"	"	⅕ albumen on first day after delivery trace on 13th day.
15	" $\frac{2}{10}$	R	"	"	Tedious recovery. By 22nd day albumen fell to $\frac{1}{12}$, and urine increased from 10 to 30 oz.
16	" ⅓	R	"	"	Trace on 10th day.
17	" "solid" Amount 8 oz.	R	Forceps	9th day	Good recovery.
18	Albumen ⅓	R	Natural	10th day	Good recovery.
19	" ⅙	R	"	4th day	Headaches and giddiness before parturition. Good recovery.
20	Albumen "solid" Amount very scanty	R	Induced labour and forceps	Not	*Convulsions* ante partum soon after admission; labour therefore induced and forceps early. Fits for 24 hours post partum at short intervals. Good recovery.
21	Albumen ⅓ Amount 20 oz.	R	Forceps	?	Headache and giddiness ante partum.

NOTE.—In all cases of doubt the presence of albumen was verified by catheter specimens.

Placenta Prævia.—There were eight cases, two complete and six partial The central cases were brought to hospital in an exsanguinated state, and died a few hours after admission; the others all recovered.

1. A. T., 32, M, 7-para, full term; admitted September 21st, 1899. She had had hæmorrhage off and on for a month before asking for hospital treatment; in the last week of that period a great deal of blood was lost, especially on day of admission. On admission, vaginal plug was at once applied, but proved ineffective. Os admitted two fingers, placenta completely covering it. Under ether placenta was separated and membranes reached through anterior edge. Fœtus turned by the Braxton Hicks method, membranes then ruptured and a knee brought down. Little blood was lost during manipulation. Dead fœtus was born one and a-half hours after turning. Post-partum hæmorrhage necessitated manual separation and extraction of placenta. Patient did not recover. The late Dr. Neill operated in this case.

2. T. M., 23, M, 2-para. Her first child was stillborn. Admitted April 16th, 1900. Labour commenced 3.30 p.m., April 16th. A week before labour she had a considerable hæmorrhage for which she had no advice, and a very severe one four hours before admission, when she first called our nurses. She was firmly plugged and removed to hospital, a short distance, by ambulance waggon. She was admitted faint, restless, thirsty, and complaining of intense weakness. Pulse 128, easily compressible. Restoratives were administered, and she was given an hour's rest, hæmorrhage being now arrested. Then dilatation was completed by Dr. Watson Munro, and a seven months' fœtus delivered by podalic version, there being but slight loss of blood. The collapse persisted, however, and patient died two hours later.

Post-Partum Hæmorrhage, etc.—There were but 16 cases of this, and none very severe. Four cases of retained and four of adherent placenta occurred.

Inversion of Uterus.—A partial inversion accompanied one of the cases of adherent placenta.

Rupture of Perineum.—Of rupture through the sphincter ani there were three cases; two healed completely and one partially.

Spontaneous Version.—This evolution occurred once in a premature fœtus.

Septicæmia Sapræmia, etc.—No deaths occurred from these causes. The usual treatment when the temperature rises is copious and repeated intra-uterine douching. Curetting was done in two or three cases, and in only one of these was a portion of placenta found retained. Portions of membrane were at times retained, but were easily removed by the fingers.

Mastitis in a mild form was present in a considerable number of cases, causing slight rises in temperature. Suppuration occurred in two cases only. Belladonna applications have never been used in this hospital.

The Infant.—The sexes were 544 males and 465 females (nine twins), 1,009 in all. Born dead, 38 (*see Table above*). Average weight at full term: Males, 7 lbs. 13¼ oz.; females, 7 lbs. 8¾ ozs. Average length at full term, males, 20·634 inches; females, 20·512 inches. Plural births: Nine cases (these are tabulated above according to presentation of first-born fœtus); in five both were males, in one both females, in three one male and one female. The presentation in five was both vertex, in four one vertex and the other breech.

Complications in infants: Harlelip and cleft palate, 1; hydrocephalus, 1; spina bifida, 3; hydronephrosis, etc., 1.

1. The hydrocephalus case was a brow presentation, R.F.P. position. It was perforated by Dr. MacCulloch and delivered by crotchet.

2. Hydronephrosis case. A married primipara of 28; 10 hours and 45 minutes in "dry" labour. Much difficulty in delivering the trunk owing to distention of child's abdomen. Autopsy was made on child by Mr. Harris. 10 oz. of fluid in abdominal cavity. Bladder distended with fluid, walls thickened. Uterus enlarged and sacculated, one sacculation on each side being size of an orange. Both kidneys enlarged and cystic, and numerous small cysts on surface. Vagina imperforate and distended with fluid. Uterus enlarged and filled with fluid, cervix obliterated. Both Fallopian tubes enlarged and sacculated; cyst on left ovary size of a pigeon's egg. Lungs smaller than usual. Heart, slight ecchymosis on visceral layer of pericardium; wall of left ventricle slightly thickened, mitral valve inflamed, tricuspid also but less. Brain convolutions well marked.

REMARKS.

As to *presentation and position* of the fœtus this table shows a close similarity to the statistics of Madame Lachapelle, and of other obstetricians in so far as I have been able to make comparisons. It shows a smaller frequency of occipito-posterior positions than is ordinarily stated in text books, though not so small as that laid down by Boivin and Lachapelle.

Mortality.—The maternal death-rate of 0·3 per cent. is highly satisfactory. The causes were: Eclampsia, 1 case; complete placenta prævia, 2 cases. A slightly lower rate has been maintained from the commencement of the work of this hospital. The ordinary mortality of child-bed is given in Playfair's text-book as about 1 per cent.

The fœtal mortality (3·8 per cent.) shows little improvement on other statistics. The most frequent causes were albuminuria (5) and embryotomy (3).

It is satisfactory to note the entire absence of death from septicæmia; no death from this cause has occurred in the seven years history of the hospital. The absence of inversion and the rarity and comparatively harmless character of post-partum hæmorrhage, are no doubt due to judicious management of the third stage of labour. The stage occupies on an average 26 minutes (see table); hastening the completion of it is discouraged in the teaching of nurses and students; the fundus uteri is kept in touch, but natural expulsion of the secundines is not hurried until they reach the vaginal cavity. The use of ergot has been practically discarded after labour, and only very rarely is it administered during the puerperium.

THE POLYPUS SNARE FOR REMOVING PEDUNCULATED VESICAL GROWTHS.

By Arthur Styles Vallack, M.B., Ch.M. Syd., Bowral, N.S.W.

Some weeks ago I had occasion to remove a pedunculated malignant growth from the bladder. The patient's only symptom was occasional hæmaturia. However, seeing no cause for this I sent him to Dr. Hinder for examination with the cystoscope. He reported a pedunculated growth, probably malignant. I made a large suprapubic opening, and found an extremely friable growth with a fairly small pedicle. I removed it in the following manner:—I grasped the growth at its pedicle with a pair of pile forceps, and then passed a loop of steel wire from a Mackenzie's polypus snare over the forceps. These were then handed to the nurse, while I passed the loop guided by the finger of the left hand over the growth. The base was gently drawn forward with the forceps, and I managed to guide the wire so as to grasp the vesical mucous membrane clear of the pedicle all round, and thus remove a small wad of healthy membrane with the growth. This was very easy on account of the free mobility of the mucous over the muscular coat. The operation was simple and, as the wire was very slowly tightened, the hæmorrhage was almost nil. I have not seen this method tried or recommended in books, but it seemed to me much superior to the ordinary method of removing such growths by twisting or biting off with forceps. The bladder was sewn up, but, unfortunately, the patient could not tolerate the catheter which was tied in. I was, therefore, compelled to pass the catheter frequently, and in spite of precautions the bladder became infected, and the patient who had gone on very well for four days rapidly went to the bad and died on the sixth day. I regret not having drained either suprapubically or by the perinæum as the patient was a man of sixty-two with a rather large and hard prostate. As one does not often open the bladder in a country practice, I can strongly recommend those who often remove such growths to give this method a trial—hence this note. The Mackenzie snare would be the best for this work.

NOTES ON THREE CASES OF TETANUS TREATED WITH SUBCUTANEOUS INJECTION OF ANTI-TETANIC SERUM.

By T. J. Henry, F.R.C.S. Edin., Visiting Surgeon, Grafton Hospital, N.S.W.

No. 1, Death.—H. R., *æt.* 7, was admitted to the Grafton Hospital on October 21, 1899, suffering from well-marked symptoms of tetanus. He was in opisthotonos, whilst convulsions of an acute character came on about every twenty minutes, or more frequently if anything disturbed the patient. There was a septic-looking wound of the left little toe, the bone of the middle phalanx being exposed, and the distal one missing.

History—On October 12, whilst playing, a heavy slip-rail fell on his bare foot, crushing the left little toe. The wound was dressed, and a lotion of some kind applied by his relatives. On the 18th—six days after the injury—as the wound was looking black, the boy was taken into Ulmarra to Dr. Plummer, the nearest medical man. The Doctor removed the distal phalanx, which was necrosing, and dressed the wound antiseptically. At that time no symptoms of tetanus were present, and the boy was taken home again, his relatives having been instructed to dress the wound.

Two days later he complained of pain in the lumbar region, and got about with difficulty. During the night spasms appeared, and in consequence the lad was taken to Dr. Plummer again on the 21st—nine days after the accident. Dr. Plummer at once recognised tetanus, and sent the boy to the hospital.

After admission I had the little patient chloroformed by Dr. Ventry Smith, and removed the projecting proximal phalanx and cleaned up the wound. During the night spasms came on about every twenty minutes, or oftener if anything touched or agitated the patient.

Next day he was also seen by the other members of the staff, Drs. Kearney and Cameron. At 1 p.m. I injected 1 grm. anti-tetanic serum and $\frac{1}{10}$ grain morphine. He slept for an hour thereafter, and was free from pain and spasms for three hours more. Convulsions then returned with greater severity and frequency than ever. He again had gr. $\frac{1}{10}$ morphia, and had no spasms for two hours thereafter.

October 23.—$\frac{1}{2}$ gramme serum at 1 a.m. This appeared, if anything, to render the spasms more acute, and they continued violently all night, the lad's sufferings being most distressing.

At 9 a.m.—$\frac{1}{2}$ gramme serum and gr. $\frac{1}{10}$ morphine. He slept for an hour, and the spasms returned with great violence. Up till now he had determinedly refused chloroform, going into convulsions at the sight of the mask. At 1 p.m. I induced him to inhale chloroform, and after he was unconscious injected $\frac{1}{8}$ grain morphine. He slept seven hours, but after the first hour had frequent convulsions. At 7 p.m. the narcosis passed off, and as the poor child's sufferings were terrible, and opisthotonos of an extreme degree being continuous, I kept him under chloroform from 8 to 10.30 p.m. After midnight he gradually became unconscious, and died at 4.3 a.m.

On admission temperature was normal. It rose gradually to 101° on the third morning, and then rose rapidly during the day to 107°. It fell during the chloroform narcosis to 105·5°, and later, as death grew nigh, rose to 108°.

The first two injections were from B. W. Scale serum, whilst the remaining were of the Pasteur Institute preparation.

No. 2, Recovery.—C. McG., 13, on March 27, 1900, whilst cracking a whip with a long thong and lash, struck himself on the right cheek, inflicting a small abrasion over the malar eminence. He came to me, and I cleaned and dressed the wound in the usual antiseptic manner, using lysol lotion. It was too small to require a suture. Three days after his mother brought him again, complaining that he was making grimaces and had a difficulty in swallowing. I at once recognised tetanus, and gave him an injection of a phial of the Pasteur Institute serum. To abbreviate the details of this case I may say that I injected a half phial three times the following day. As the symptoms appeared to be growing steadily worse I, on the third day of the disease, held a consultation with Drs. Ventry Smith, Cameron and Kearney to decide whether the serum should be administered by intra-cerebral injection After deliberating, we decided not to practise this method, being chiefly deterred by reading of a case wherein the patient subsequently succumbed to double abscess of the brain. I therefore continued the subcutaneous method of administration.

For a week after this the symptoms remained severe, opisthotonos being marked and the spasms appearing every few minutes at times, and at any time any sudden movement of the bed causing their onset. They were very painful indeed, and at their approach the patient cried out in terror as well as he could articulate. A half-phial of anti-toxin was administered three times daily, the number of injections being thirty-three in all. After the first week the symptoms gradually subsided, and the injections were discontinued on the twelfth day. Spasms, growing less severe and frequent, were present for three weeks. It was not till the sixth week that the risus sardonicus and stiffness of the spinal muscles disappeared, whilst emaciation and debility lasted well into the third month.

No. 3, Recovery.—W. S., 13, on January 25, 1901, slipped on a wet log while fishing, and ran a splinter into his bare sole close to the great toe. The splinter was not removed. On February 4 the lad seemed "out of sorts." On February 5 he was unable to walk owing to "stiffness in the legs." His father then removed the splinter as the wound had become inflamed. At 4 p.m. on this day I saw him and recognised tetanus. There was moderate opisthotonos, with occasional twitchings of the body generally, during which the head was twisted to the left. He could only partly protrude the tongue with an effort, and talked in a characteristic way with marked grimaces.

At 9 p.m. he was admitted to the hospital, where I excised the wound and applied zinci chloride gr. xxx. to ℥i I then gave an injection of 8 cc. anti-tetanic serum (Pasteur). It is not necessary to give daily details of this case. Suffice it to say that his symptoms were well marked for three weeks, although the number and frequency of the spasms diminished after the first week. Opisthotonos and left pleurothotonos were present for a fortnight. Injections of serum 8 cc. were given twice daily for ten days together, with morphia when the pain was great. Constipation, which was troublesome, was treated with calomel. A subcutaneous injection of a pint of normal salt solution was also given on the sixth day. As the spasms had practically disappeared at the end of the third week, although some risus sardonicus and opisthotonos were present, his parents removed him to his home in the country. I heard good reports of his progress from time to time. He was unable to walk, however, until about six weeks after the onset of the tetanus. A month later he came to town in perfect health, having lost all trace of the disease.

In all these cases the injections were made into either the abdominal, intra-scapular, or thigh fascia. No local trouble resulted in any case.

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APPENDICITIS FROM THE PHYSICIAN'S POINT OF VIEW.

BY A. E. MILLS, M.B., CH.M. SYD., HON. ASSISTANT PHYSICIAN PRINCE ALFRED HOSPITAL.

I THINK most of you will agree with me in this, that appendicitis is a common disease, that it sometimes is of a mild character, sometimes of a most serious nature, and that it generally comes first under the notice of the physician. Now, if appendicitis be a common disease, it ought to be readily recognised. Is this so? Personally, I have my doubts about it, as the following cases will show.

Some months back I was asked to see a patient in the country, a lad of 12, in consultation with his medical attendant. There was a history of sudden onset of pain in the abdomen. His attendant, suspecting appendicitis in the beginning, later on began to doubt his original diagnosis and was inclined to the belief that the patient had typhoid. When I saw him, the child, very emaciated, lay doubled up in bed with distended belly, which was tympanitic in the upper part and dull below. There was slight hectic temperature, pulse raised, and examination per rectum showed bulging mass on right side. The rectal examination cleared up any difficulty that might have existed, and with this information and that obtained by the history and by examination, there was little doubt we had to deal with a huge appendiceal abscess. Such a condition was found at the operation, which we straightway advised. That lad developed a fæcal fistula, which has not yet quite ceased discharging.

Shortly after this I saw another case in Prince Alfred Hospital, which was transferred to my care from the surgical side. She came up after having had an exploratory median incision made for a supposed tubercular peritonitis, a condition which was not found at time of operation. Nothing was found by the surgeon to account for her low condition. Now this patient happened to have been an old patient of mine while I was practising in the country, and, as I knew her family history well and knew her healthy surroundings and mode of life, I was surprised to learn that she had been suspected of tubercle. She had been ailing some three months, and Dr. Morton, of Camden, who had seen her some little time after she had been taken ill, had suspected appendicitis. When I saw her, she was in a very weak, emaciated state, œdema of legs, slight ascites, and great abdominal distension. She had a proptosed liver and spleen, the proptosed liver giving the idea to the surgeon who had done a laparotomy that the liver was greatly enlarged. The abdominal flatulent distension masked any other condition that might have been present, but examination per rectum showed a bulging mass on the right side. Further examination showed a swelling over right iliac crest, which fluctuated. Into this I inserted a needle and drew forth pus. With the knowledge gained from her history and from a careful examination, and with the existence of an abscess pointing above the iliac crest, I felt justified in assuming the case to be one of appendicitis with subsequent abscess, and I had her transferred to the surgical ward. The abscess was opened, and later the appendix, all matted up, was removed, and the patient went out on the fair road to recovery after an illness of some six months' duration. I think this was probably a case of appendicitis in which the resulting abscess was post-peritoneal, and hence the surgeon missed it when opening the abdomen at first.

Some little time ago I was asked to see a little girl in consultation. The doctor had been in attendance for four days. The child had been eating fruit the day she was taken ill, and some hours after had complained of severe abdominal pains, followed by vomiting. The pain had continued off and on until a little while before I saw her. The medical attendant had put the condition down to gastric attack, and had administered opium. When I saw the child she had temperature of 106°, pulse 160. She was practically only semi-conscious, abdomen frightfully distended and board-like, with dulness in flanks and over hypogastric region. Per rectum, there was a bulging mass on the right side, pressure on which made child wince. There were a few crepitations at both bases, which the doctor thought accounted for her semi-conscious state, but which were probably of hypostatic origin. To my mind, this child had septic peritonitis, and from the history of the illness given by an intelligent mother and the evidence gained by a rectal examination, I have no doubt it originated from a perforated appendix.

Thus I think I have reason for believing that this common disease is not always recognised, and Case No. 2 shows that the surgeons may mistake it and not find it at operation. The question naturally arises why such a common disease is overlooked. One can only say that in the majority of cases the error is due to carelessness. I quite admit that difficulties in diagnosis may arise from unusual situation of the appendix. Some months back I gave an anæsthetic to a patient who was operated on for appendicitis with localised abscess, and who complained of severe pain in his loin over the position of his right kidney. At first his medical attendant put the trouble down to renal colic, but there was an absence of other renal symptoms, and a careful examination disclosed tenderness with some resistance over the right iliac region; this led the physician to a correct diagnosis, upon which surgical treatment followed with a good result. But, in the vast majority of cases, I think, from what I have seen myself, both in private and in hospital practice, the diagnosis is easily made, and if mistakes occur it is an example of the wise old remark over again: "More mistakes are made by not looking than by not knowing."

Sudden onset of abdominal pain, which may be referred to right iliac region or umbilicus, with perhaps vomiting and raised pulse and temperature, and with especially marked tenderness over point midway between umbilicus and superior iliac spine, are signs sufficient, I think, to justify a diagnosis of appendicitis, but in all cases I would plead for a rectal examination. By rectal examination I have been able to make certain of the existence of an appendiceal abscess which otherwise might have remained in doubt. This, after all, is only a plea for thoroughness in our work, neglect of which lands us all in difficulties. Diagnosis of this complaint, as of 99 per cent. of others, is not difficult when all the facts bearing on the subject are before us. It is in attempting to come to a conclusion on imperfect or insufficient grounds that most of us come to grief.

But, assuming now that the disease is recognised, what should be the duty of the physician? Well, this depends chiefly on two factors—the length of time which has elapsed since the onset of symptoms, and the condition of the patient when seen. If the patient be seen early within say six hours after the pain has started, and if the temperature is not very high—but this after all is not much guide (for I saw quite recently a case of perforated appendicitis with general peritonitis where the temperature was not more than 100°, and a man with an appendiceal abscess with no temperature) and the pulse not out of proportion—not unduly quickened—100 or thereabouts with little or no vomiting, I should say wait and see the patient within eight or twelve hours, and compare the condition with that previously existing. If the pulse rate be less and the tenderness less, and if the patient has slept without the aid of opium or morphia, especially if the bowels have been moved with relief of discomfort, I should say that case would do well, and will need only rest, light diet and a placebo.

Such a case I saw a few days ago. While visiting an old diabetic gentleman, I was asked to see the groom who was about doing his work. This patient complained of pain in his belly, which occasionally doubled him up. He had been ailing three days, doing his work, but under great difficulties. He thought his trouble was due to a strain while jumping over a fence. On enquiry I learned that his pain did not come on until four or five hours after he jumped the fence, so his theory would not stand. Examination revealed marked tenderness over the appendix, no dulness, nor fulness nor hardness, and nothing per rectum. Temperature was 100°, pulse 90. Further enquiry brought out the fact that he had had a previous attack. He got quite well in three or four days. Here was a simple case of appendicitis, with no secondary complication, and if it had been a first attack I would have advised him to wait, but, as it was a recurrent attack, I advised him to have his appendix removed—advice which up to the present he has not taken.

Such simple cases do well under almost any treatment, or no treatment at all. But these are not the cases which are the cause of anxiety. It is the acute cases, or cases on the borderland of acuteness, which demand a prompt recognition of their gravity. Let me give you an example.

A bright little girl, *æt.* 10, was taken ill at school in the afternoon of Wednesday, with pains in her abdomen. She came home and vomited, went to bed. During the evening vomited two or three times. She had a restless night, sleeping off and on. I saw her at 12 o'clock next day. Child was obviously very ill though she said she felt better than during the night. Temperature was 101°, pulse 130. Examination of abdomen shewed slight tenderness all over lower half, but the tenderness was distinctly more marked over the appendix. There, there was also more resistance, and the child herself pointed to this part as the most tender. The rapidity of the pulse, the large extent of abdominal tenderness, the facial aspect, all pointed to an acute attack. I advised operation immediately. Dr. Hinder was called in. He agreed with me, and at 3 o'clock the same day, the operation was performed by Dr. Hinder, with Dr. Purser's help. A ruptured appendix was found with general peritonitis, for pus was found free in the abdomen in the left and right flanks. She was washed out, drained, and made a perfect recovery; although, for the first day or two her condition was very grave. Here now was a case, in which the operation was performed within 24 hours from the onset of symptoms, and who shall say it was too early?

Contrast this with a case seen by my friend, Dr. Purser, who gives me permission to quote it. A young, strong, healthy man was taken suddenly ill with acute pain in belly, localised to cæcal region. His attendant saw him soon after the attack, stated it was colic, gave hypodermic injection of morphia, and then did not see the case for more than twenty-four hours. Dr. Purser was then called in, found the man with pulse of 136, recommended his removal to hospital for immediate operation, which revealed perforated appendix, general peritonitis; but the case was left too long; the patient died within short time after the operation. In this case the fatal mistake of giving morphia was made. The man's pain vanished and he felt better, the doctor deceived himself, and the patient's one chance of recovery by immediate operation was not granted. But who shall blame that doctor, when even Mr. Treves advocates the use of morphia in these words, in his article on "Perityphlitis" in "Allbutt's System": "Supposing that the onset of the attack be very acute and severe, the administration of an aperient cannot be entertained; morphia is to be given, and as soon as the pain has subsided an enema may be employed"; and then he advises waiting a few days. Anything that Mr. Treves writes must be received as coming from one high in authority, but we must all form our own opinions, moulded to a certain extent on those of others and on our individual experiences, and we should at any rate all be prepared to give a reason for the faith that is in us. Now here were two cases of a severe and acute type. Had morphia been given in the first, I feel sure, and I think you will agree with me, that a fatal issue would have been the result, for a feeling of well-being would have been established and delay would have been the result, and delay in such a case would in all probability mean death.

In meeting such cases, then what is the duty of the physician? I can only give you my opinion, carefully thought out from a not inconsiderable number of cases, and with due regard to the welfare of my patients, and the satisfying of my own conscience. In the acute and severe attacks seen early within eight hours, take full note of all the symptoms vomiting pain, tenderness, etc., paying particular attention to the pulse character and rate. Abstain from opiates or morphia—apply hot fomentations and give an enema. Avoid food either by the mouth or rectum. Secure as much rest as possible. A placebo may be given in the shape of bismuth or salol or resorcin. See the patient again within six hours; if the condition remains much the same, or if the pulse be still more raised, then advise operation and seek the aid of a surgeon. That patient, in my opinion, should be out of the hands of the physician, and placed in those of the surgeon. If the surgeon says wait, then, when you as a physician have advised operative interference, responsibility rests with him, and it is no light one. I have seen no ill results follow early operation, but I cannot say the same when the operation has been deferred. Delay is dangerous, and may be applied to these conditions with as much force as to those of ruptured tubal gestation.

I say abstain from morphia or opiates, despite Mr. Treves' advice and the expressed opinion of others of much greater authority than mine, still I say abstain. By its use one masks symptoms, and is led into a sense of false security.

Then, when I advise a surgeon I mean a surgeon who is engaged in hospital work; because I do not think it right or fair to the patient that a man who is not regularly engaged in operative work should do such operations. It seems to me, who have seen quite a number of operations for appendicitis in the quiescent stage, the stage with abscess, and the perforative variety, that an experienced surgeon's skill may be taxed to the utmost at times to know what is best to be done for his patient. I am referring now to conditions prevailing in the city and suburbs. I recognise that in places situated far from large hospitals it may be the plain duty of those not specially practised in abdominal surgery to operate, and in most cases, even the serious ones, if the operation be done early, the results will be alike gratifying to the patient and attendant.

But the case may not be seen within six or eight hours of the onset, twenty or twenty-four hours may have elapsed. What is the physician's duty then? He must, of course, carefully examine his patient, getting, if possible, a detailed history of onset, character and intensity of symptoms. He must note the present condition with special reference to the character and rate of the pulse, and if the conditions point to the persistence of an acute illness—to put it in general terms—the continued absorption of poisonous products, pulse 100 to 120, raised temperature, vomiting, etc., I would again say advise operation and seek the aid of a surgeon.

Now I know this may sound unorthodox, but I am not summarising the expressed opinions of others, I am giving you my own views which I can at any rate back up by actual cases. They may or may not commend themselves to you but they work well in my own practice both in private and in hospital.

But suppose that the physician temporises. What is likely to happen? One of three things. (1) the patient may in a day or two get well or be on the right road to recovery; (2) an abscess may form round the diseased appendix, which, if not perforated, is so damaged as to allow the contained organisms to pass through. (3) The appendix may perforate or be perforated, be gangrenous with resulting local peritonitis, which may rapidly become general.

But of these three conditions who is to tell which shall take place. Remember we are dealing with cases not of a mild character. Can we say when the appendix has perforated? From the opinions expressed by myself and by those also experienced and skilled in this disease, and abdominal diseases generally, on this very point, opinions which have not been verified at operation, I say that it is largely a matter of conjecture Nor is this to be wondered at, for with an acutely inflamed and consequently damaged appendix, peritonitis of a most virulent type results as readily as if the appendix were perforated. Let me quote, in illustration, another case that occurred in a patient of mine not very long ago.

A man, aged 39, in robust health, with no definite history of a previous attack was seized at about eleven o'clock at night with acute pain in his belly, just above his pubis, pain shooting down to his penis. He vomited once or twice, had great and frequent desire to micturate during the night, and slept very little. I saw him about eleven o'clock next morning, when he said he was feeling better. He had dryish tongue, pulse 120, temperature 102·8° Belly generally distended, with some general tenderness, but most marked over cæcal region. He looked ill, and was sweating a great deal. Nothing was to be made out per rectum. The severity of the symptoms, the suddenness of onset, the still-rapid pulse, the evident illness of the patient and the seat of tenderness, all pointed to an acute attack of appendicitis, which I thought was of the perforating variety. I advised operation. Dr. Hinder asked to see the patient. He agreed with me. Operation was done fifteen hours after onset of illness. The appendix was quite intact, but intensely inflamed. There was a great deal of yellowish fluid free in the peritoneum, the bowels were distended and inflamed, in fact he had peritonitis. Despite the early operation, the careful handling, he died in three days of septic peritonitis. The fact is, gentlemen, as Osler has recently pointed out in a paper on "Perforation in Typhoid": "The classical signs of perforation of the bowel are the signs of the resulting peritonitis," and those of us who look for collapse, drop in the temperature, distension, wait too long The patient under such conditions has little or no chance.

To do good at all in this disease, as in those of perforation in typhoid fever, we must anticipate, if possible, the onset of general peritonitis. We should, to quote Osler once more, "Call in a surgical colleague, with an increase in pulse rate, distension of abdomen, increasing pain on pressure, and even in a doubtful case the patient should be given the benefit of the doubt, and operation urged."

Now I know full well that some acute cases get well under medical treatment, and many of them result in a localised peritonitis with formation of a localised abcess. and although the operation in such cases is comparatively free from risk, there is always the probability that that localised abscess may, if the case be left alone, cause a general peritonitis, with a rapidly fatal result, often. as Osler says, without actual rupture of appendix.

A little girl, some months back, walked into my room with a huge appendiceal abscess, result of illness of about a fortnight's duration. I advised immediate operation, which was duly carried out, but the child died of septic peritonitis, as result of the abscess wall giving way.

Let me recite one more case, and I have finished. Some three months ago, I saw a girl of 14, with the symptoms of fairly acute appendicitis; temperature 102°, pulse 120; pain and tenderness. I got the bowels moved by an enema, had hot stupes applied, and by way of medicine ordered a bismuth mixture. I saw her within six hours; her condition was much the same. I suggested operation, but the parents were very much averse to such a course, and I urged that a surgical colleague should be called in. Dr. Thring saw her with me within twelve hours of the onset of illness. She was then no worse, if anything a trifle better. He suggested we should wait, and with this suggestion I fell in, though I confess I would have preferred operative interference That child did quite well, and was practically well within a week. The surgeon scored—but wait—within two months that child was suddenly seized, while playing tennis, with sudden abdominal pain over cæcum. I saw her about two hours after, with a very acute attack. Bounding pulse, 120-130; great pain and marked tenderness. I saw her again with twelve hours of her illness. The was then a little worse, pulse-rate was more rapid. She had vomited a good number of times; there was slight distension. Here, to my mind, was a case admitting of no further delay. I communicated her condition to Dr. Thring, who agreed that urgent operation was called for, and within twenty hours of onset of attack she was operated upon. A ruptured appendix with abundant purulent fluid, not shut off to any extent, and burrowing into pelvis was found. The child's life was in great jeopardy for some two or three days, but she ultimately did quite well. I was inclined to think that the first attack had left behind a small local latent abscess, which had suddenly burst and produced the second attack. If so, would it not have been wiser and safer to have operated straightway at the first attack? I think so; but it is very easy to be wise after the event.

I can only say that I look upon appendicitis, particularly the acute variety, as a disease requiring, in the vast majority of cases, surgical treatment; and holding this view, I fully agree with Osler, who says: "Medicine has become a medico-chirurgical act, and, to practise successfully, we physicians must know the work of the masters in surgery. In the diagnosis of disorders of the abdomen, we are their pupils. In cases likely to become surgical, the early association with a surgical colleague is both a duty and a pleasure." (For discussion on this paper see p. 249.)

Trained Male Nurse seeks engagement in mental or ordinary medical cases. Has had considerable experience in mental nursing, and is accustomed to travelling with patients to Europe and in the Australasian states. Unexceptional testimonials. References kindly permitted to Drs. F. N. Manning, Jarvie Hood, W. E. Warren, T. S. Dixson.
Address: R. T. O'Neill,
68 Crown Street,
Nr. William St.
(Late 17 Leicester St., Sydney.)
For Telephone No., see July list.

BRITISH MEDICAL ASSOCIATION.

NEW SOUTH WALES BRANCH.

A General Meeting of this Branch will be held at the Royal Society's House, Elizabeth Street, Sydney, on Friday, 28th June, at 8.15 p.m.

Business:—General.

G. T. HANKINS, Hon. Secretary.

SOME CASES OF NERVE DISEASE.

By F. Hamilton-Kenny, M.R.C.S., L.S.A.,
Medical Superintendent Hospital,
Gympie, Q.

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(1) Po Kong, aged 53, gardener, opium-eater, no English. Admitted October 16th, 1899.

Emaciated face, emaciated arms and thorax, ribs bulge, abdomen tympanitic, both legs, both thighs soft, big, juicy, pit on pressure. No ascites. He stands badly and walks worse, totters along feebly, no P.T.R., no clonus, no anæsthesia. Heart — No hypertrophy nor dilatation, no bruit, feeble sounds. Pulse normal in rate, but weak. Lungs—Pleuritic rub near right nipple. Urine 1020 acid, very dark from bile pigment, no albumen, no sugar, no deposit. Sight—normal, no phenomena. He vomited freely, conjunctivæ got yellow, skin got yellower, and he died suddenly on October 22nd.

Treatment—Digitalin, strychnine, stimulants—pushed.

I regarded this as a case of beri beri, which is not unknown in Queensland, and treated it from that point of view.

(2) B H., aged 9. Admitted November 28th, 1900.

Up to the evening of November 24th he was the hale, hearty, only child of his parents, living in the bush—selectors. He complained of feeling unwell, and was put to bed. He lost the use of his legs on the 25th, and his arms on the 26th; first one leg, then the other, and the same with the arms. When I saw him both legs and arms, abdominal and intercostal muscles were paralysed. He could move his head and neck and face and tongue muscles. Mind was clear, P.T.R. was gone, all reflexes were gone—cremasteric as well as others. He breathed solely by his diaphragm. Artificial respiration was quite valueless to open up his chest. He had no loss of sensation at all. His bladder acted normally, but anus was patulous, and he could not retain an enema. His temperature never was higher than 99·6° F. Urine normal, sight normal, no paralysis of throat, swallowed well, no question of diphtheria. He died on December 1st through his lungs, the breathing got shallower and shallower. Heart kept good and strong until the end.

Treatment.—Strychnine ♏v. every four hours. Stimulated and fed.

I regard this as a case of acute ascending motor paralysis—the same type as Landry's. The cause was probably exposure to the sun.

(3) J.T., aged 17. Admitted January 24th, 1901.

Male, gardener, healthy up to date. Came to hospital with a temperature of 101·2°; looked ill. On the 28th temperature was normal, but he complained of loss of power in his legs. By the 30th all power in both legs gone—a motor paralysis—sensation quite good. Both sphincters acted well all along. On April 24th I procured admission for him into the Brisbane Hospital for electric usages and massage. From January 30th to April 24th his condition changed but little. Lungs, heart, digestive system, kidneys healthy. A motor paraplegia, but nothing else whatsoever. By April 24th he could gradually draw his right leg up if bedclothes were taken off, but not his left. His health and spirits were excellent. There was no question in this case or the preceding case of diphtheria, or mineral or alcoholic poisons, or ticks. No spinal mischief. He could not stand after January 30th.

I regard this as a peripheral neuritis. The cause, exposure to the sun's rays. My prognosis is that he will eventually recover. At time of writing (June), I hear he is much the same.

(4) G.J., aged 20. Jackaroo on station.

Consulted me on April 17th for left-sided paralysis of face—a typical case of Bell's Paralysis in a perfectly healthy young man. Chief trouble was inability to close eye; cause unknown. I mention this case on account of the time it took to get well. I saw him last on July 15th. Some slight return of muscular movement was occurring after a period of three months.

Treatment—Electricity, massage, blistering, tonics.

(5) C.F., aged 3½.

A fine, healthy female child till three years of age, then there was a fit and gradual failure of powers till extinction. The legs were stiff and straight, talipes equino-varus of the feet, increased P.T.R., could not get clonus, walks on her toes, supported, legs quite close together, arms partially rigid, spasms come and go, fingers clenched. The left leg and arm are more affected than the right. Fingers open and shut spasmodically, sphincters normal, no cardiac lesion, child looks queer, prominent eyes, no phenomena. I gave a fatal prognosis. No drugs did good.

I regard this as spastic paralysis of infants.

(6) W.B., aged 62, bricklayer. Ill two years and getting worse.

The points in his case were—Inability to walk well, staggers, must look on ground, cannot feel ground well, no distinctive gait, P.T.R. much exaggerated, no clonus, no eye symptoms, volitional tremor and inco-ordination on picking up a pin, or with glass of water or buttoning, no scanning of speech nor defect, some mental failure, severe pain over coccyx, no injury or disease of spine, syphilis not proven.

No treatment did good.

I regard this as ataxia paraplegia.

(7) J.R., carried into hospital and so long as he lay in bed he was all right. He broke his leg nine months ago; it healed, but his health was gone. He denied syphilis, knee jerk gone, some inco-ordination of arm muscles, pupils act on accommodation but not to light. He has shooting pains now and again and has had some bladder trouble, and partial loss of bladder and rectal control There is little doubt but that he is a victim to locomotor ataxy.

(8) M.D., aged 14. Admitted April 14th, 1901.

Up to the age of nine quite well and strong; since then gradually got bad. This child—a female—has scanned speech of the most marked kind, volitional tremor. A cup of water to the lips brings it out well, nystagmus, not well marked but present, tremor of tongue but not lips, no eye phenomena, a touch on the patellar tendon sends the leg flying out, clonus is present but not much, her gait is ataxic, clumsy, toes turned up, she stumps up the ward on the whole foot, sphincters normal, no cardiac lesions.

I regard this as insular sclerosis. She is young for it—the cause unknown. She had measles last year. General tonic treatment has improved her.

(9) My last case is also one of insular? sclerosis in a lad of 16. It began some six weeks after leaving the hospital convalescent from typhoid fever four years ago. His parents date it from a sea-bath at that time. His right leg was affected first, and in two weeks both arms. There is no disease of bony spine, he has an equino-varus walk, toes turned in and very clumsy movement, cannot stand or walk alone, knee jerk is large and distinct, but takes a distinct interval to come in, clonus is slightly present, volitional tremor, scanned speech, no ocular phenomena, no lip or tongue trouble, sphincters normal. His chief trouble is that every now and then spasmodic seizures in the muscles of arms and legs occur. These exhaust him—his face twitches and twists and speech goes. A curious thing in his case is that warm baths bring on diarrhœa. His mother tells me she can only sponge him in consequence.

It may be said this is lateral, but on the whole I think it is more insular sclerosis.

HEREDITY AND DISEASE.

By J. Flynn, M.B., Ch.M., R.U.I., Sydney.

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(Continued from Page 109, "Australian Medical Gazette," March, 1901.)

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plained.
redity of
lorosis.

The influence of heredity in chlorosis is admitted by most observers. The exciting causes of chlorosis are numerous and important, but there is almost always evidence of some inherent predisposition. How often does it happen that the daughters in certain families, as they respectively arrive at puberty, seek aid for this disorder? In such families the mother generally states that she and her sisters suffered similarly at corresponding ages. Practitioners whose hairs have grown grey in the healing art, are able to bear personal testimony of the transmission of chlorosis, having treated both the daughters and their mother before marriage for this ailment. It is generally held that the daughters inherit from the mother, but seeing the little attention that has been hitherto paid to the phenomena of "latent characters," may it not often happen that the father, though not affected in this way himself, may be the transmitter in the chain of this condition to his daughter? The condition is probably potentially present in the individual from birth, and comes to light under definite conditions at particular phases of development. Though the etiology[1] of chlorosis is by no means definitely settled, the weight of evidence is against it being an "acquired character." An aggravating circumstance is not necessarily a cause. Neither Bunge's hypothesis, as to the assimilation of the organic iron of the food being prevented by the sulphuretted hydrogen generated in the intestinal tract of dyspeptics, nor Sir Andrew Clark's theory of the absorption from the bowel of poisonous principles with hæmolytic properties, can be accepted, as they each labour under defects which we need not here stay to relate. But the sulphuretted hydrogen developed in the intestinal tract in the one theory, and the poisonous principles absorbed from the bowel in the other, may be and are very important determining circumstances.

Heredity of Chlorosis not opposed to Weismann's theory.

The secret of causation in chlorosis seems to lie rather in diminished manufacture or imperfect formation of hæmoglobin, rather than in its excessive destruction. The congenital hypoplasia of the vascular system, as advocated by Virchow, can scarcely be accepted in that form. That a disorder so common and so amenable to treatment should depend on so grave and so incurable an arrest of development, as Virchow suggests, is on the face of it highly improbable. But a modification of Virchow's views is highly probable, namely, that the affection depends on a functional peculiarity—a lack of regenerative power on the part of the hæmogenetic tissues—on an atonic condition not only of the vessels and the blood, but also of the blood-forming organs. An individual possessing such a blood vascular system might be able in favourable circumstances to comply with all the demands of the economy for blood formation. A period of extraordinary demand arrives, such as that of puberty: Uterine, muscular, osseous, general connective tissue changes occur at a rapid rate. What more natural than that in another group of mesoblastic descendants an expression of sympathy should be felt, and that the blood-forming organs should have their developmental powers severely taxed, and if labouring under any inherent weakness, should prove unequal to increased demand for blood, and symptoms of chlorosis arise. This inherent defect in the blood-forming organs may be latent, or in order to make itself manifest may have to await some exciting *post-natal* cause, such as intestinal toxæmia, which simply acts upon and intensifies the difficulties they have to cope with at puberty—makes, as it were, a tight fit tighter.

If we accept the view then that chlorosis is due to some inherent peculiarity of the blood

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(1) In this connection it is well to recall the fact that in disease the blood tissue is unmade in the reverse order to that in which it was made. The series of changes which the blood undergoes in the fœtus bears a striking analogy to the changes that are observed as we ascend in the animal scale. In lower forms the blood consists of a non-corpuscular watery fluid. When we come to the Molluscs and Crustaceans it commences to show corpuscular elements. In the lowest vertebrates, red cells, characterised by their large size, oval shape, and well-marked nucleus, appear. As we reach the mammalian level the red cells lose their nuclei, diminish in size, and take on a circular form. In the fœtus, at a very early stage, we meet with an amœboid white cell, and soon afterwards a nucleated red cell. This persists during fœtal life, and disappears soon after birth, except in red bone marrow, to reappear, however, in certain diseased conditions.

In leuckæmia, if from any cause the proliferation of the lymphoid tissues is handicapped by the incapacity of their products to develop into red corpuscles, we have an accumulation of the most primitive and simplest cells—the lymphocytes. The red marrow cells make a feeble effort to restore the balance by reverting to their old ancestral power of producing nucleated red cells. These, together with the polynuclear leucocytes, make an attempt to make good the deficiency of the red corpuscles. The attempt proves abortive, hence the poikilocytic condition, with its distorted and now and then nucleated small red cells. The body temperature falls, the blood sinks to the Crustacean stage, and life's activities fall to the Molluscan level.

In pernicious anæmia, which, according to the recent investigations of Hunter, is a definite infective disease, the channel of infection being the mucosa of the alimentary canal, we have not only distorted red cells, megalocytes and microcytes, but also the reappearance of the old large nucleated red cell, without any absolute increase in the white, suggestive of the reversion of the blood to the amphibian stage. Here life's functions and activities sink to the tortoise or turtle level.

In the simple anæmias proper there is a diminution in the number of the red corpuscles, there is a falling below the Mammalian level in their quantity, and lastly, in chlorosis there is only a functional disturbance in the red corpuscles by which they are incapable of maintaining their normal quota of hæmoglobin.

vascular system, including blood-forming organs, aided and intensified by intestinal toxæmia, it is easy to understand how it is to a large extent hereditary, and that here there is no transmission of an acquirement.

Another view as to the heredity of chlorosis has been put forward by Dr. Lloyd Jones. In ordinary anæmia, the specific gravity of the blood tends to rise, while that of the plasma alone tends to fall. In chlorosis, on the other hand, the specific gravity of the blood falls, while that of the plasma alone is not only up to the normal standard but may exceed it. In ordinary anæmia the serum is deficient in quantity, in chlorosis it is abundant. The anæmia marked by abundant plasma and deficient hæmoglobin—that of chlorosis, is found in women who come of large families, in women who have many brothers and sisters. In such families, the blood of the sons, as well as the daughters, has its plasma abundant and of good specific gravity. From these facts, which are based on a large number of observations, both clinical and pathological, Dr. Jones infers that this kind of blood is the blood of fertility, the blood that has for its end the storage of nutritive material for the fœtus during pregnancy. The change of the blood in chlorosis is then but an extreme fluctuation of the physiological quality of the child-bearing period of life. In this connection it is well to recall that many years ago Cazeaux contended that the pregnant state was essentially analagous to chlorosis. We have already seen that fertility runs in families, and on the authority of Dr. Jones we have it stated that the specific gravity of the blood in women who have many brothers and sisters stands at a lower mean, that, in fact, this low mean may be taken approximately as a gauge of fertility. Authorities of standing speak approvingly of Dr. Jones' views.

Heredity in Disease of the Digestive System. Close relation of stomach and liver. Mutual reaction of the disorders of each organ on the other.

In discussing the heredity of disease of the digestive tract, it is well to bear in mind the close relation existing between the stomach, intestines and liver, both from a developmental and functional point of view. The stomach may be considered a widely-expanded gland, exceeding in activity of function any other secreting structure in the body. Its glands, both peptic and pyloric, originate from cylindrical cell-masses formed by aggregation of ento-dermal cells. The liver is a compound tubular gland, developed as an evagination from the same gut tube. The hepatic cylinders and the gastric cylinders are both subsequently hollowed out, one to form bile ducts and bile capillaries, the other to form the lumen of the gastric glands. Ewald, protesting against the use of the word "catarrh" as applied to stomach affections, says, "the structure of the gastric mucosa is such that it is out of the question to call it a mucous membrane; it is rather an aggregation of numerous tubular glands placed alongside of one another with excretory ducts and epithelial cells." When we speak of an acute or chronic gastric catarrh, we are in reality speaking of an acute or chronic gastro-adenitis, since the mildest catarrh is an affection of the glands themselves. Every affection of the stomach affects the liver, and every disorder of the latter is reflected on the former. Both organs form a complex chain of function, in which, if one link breaks, the whole chain becomes disturbed. When the stomach is primarily affected, when it fails to convert its contents into peptones, or too hastily hurries them on into the duodenum, the liver is both directly and reflexly affected. The portal vein is contaminated with the products of incomplete digestion; the hepatic function is disturbed, and allows poisonous products into the general circulation, which are mainly responsible for the languor seen in patients suffering from "biliousness." And when the liver is first affected, the portal congestion injuriously affects the stomach through venous stasis in all the radicles of its venous supply.

Heredity of gastric disorders.

Now, just as some persons inherit unstable nervous systems, and others flat, narrow chests and weak lungs, so there are others who inherit insufficient livers and feeble stomachs. Many persons are born with incompetent livers, and many others have a predisposition to gastric catarrh. Who has not witnessed dyspepsia in its protean forms handed down from parent to child? And how often does a patient state "my father (or my mother) had a very weak stomach too." It is well known that several members of a family will develop symptoms of gastric catarrh from exposure to influences which would prove harmless to ordinary individuals. This tendency can be often traced back in a family for several generations. Peculiarities of gastric function present in the father may be revealed in the son, just as the special features of one are traceable in the other. Observe the severe gastric symptoms produced in certain persons, and inherited from their forefathers, by the use of butter, pork, game, mackerel, crab, cucumbers, strawberries, mushrooms, pickles, apples, chestnuts, and even honey. Witness the inability to digest the albumen of eggs and milk which is often met with in related individuals through several generations. This can be accounted for only by some inherited peculiarity in the gastric glands.[2]

(a) Acute, "Gastric Catarrh."

Seeing how easily the *secretory* and *motor* functions of the stomach are influenced and disturbed by extraneous circumstances[3] such as excessive eating, too rapid eating, insufficient mastication and ensalivation, by irritating ingesta, by nervous influences, it is not as easy to realise the effects of heredity here as in other organs. Any stomach, no matter how vigorous, may be upset by abuse, and there are few stomachs so feeble that by judicious selection of diet and a regular mode of life will not carry on their functions satisfactorily. Nevertheless, making all due allowance for the important part played in gastric affections by extraneous influences, there is no doubt that many persons are predisposed to acute gastric catarrh, and there is equally no doubt that the predisposition is hereditary. Ewald, referring to this point, states: "Although none of the text-books, with the exception of Lebert, mentions this circumstance, yet I have no reason to doubt it, since too many patients have assured me, either spontaneously or after questioning, that the father or mother had suffered from a weak stomach, or that their brothers or sisters were equally predisposed." It would seem that this peculiar disposition is not similarly affected by the same exciting cause in all cases, rather does it require different conditions in different families for its manifestation. Thus Soltau Fenwick, referring to the heredity of this affection in children, states: "It is also a noteworthy fact that while the members of one family will contract acute catarrh of the stomach, owing to a change in the temperature or degree of humidity of the atmosphere, those of another will only develop symptoms after partaking of some special form of food. Others, again, are unaffected by both of these conditions, but will immediately suffer whenever an epidemic of an infectious disorder, like scarlatina, typhoid, or 'summer diarrhœa' breaks out in the neighbourhood. Family predisposition was a conspicuous feature in nearly 17 per cent. of all the cases of acute gastric catarrh which have come under my notice at the Evelina Hospital and elsewhere, and I am consequently inclined to invest it with a much greater degree of importance than it has hitherto been accorded."

(b) Chronic "Gastric Catarrh."

In chronic gastric catarrh, although, the patient's own indiscretions play a very important rôle—as Ewald says "it is the best nourished and most prevalent of this world's ills"—still there is reason to believe that in a large proportion of the cases that occur, especially in early life, it is hereditary, and that the mother is much more apt to transmit than the father.

(c) Functional Disorders.

Functional disorders of the digestive organs, such as failure of the secretory and motor powers, frequently run in families. Insufficient quantity or defective quality of the gastric juice, deficiency of muscular action on the part of the walls of the stomach, are the determining factors of "atonic" dyspepsia. And the disposition to this condition is often inherited. Just as the amount and character of the secretions of the skin differ in different families, so do the different digestive juices. One family secretes a large quantity of saliva, another a small amount, or in one set of related individuals secretion of gastric juice may be abundant, in another scanty, and so with the other intestinal juices. Now it is easy to understand that if a member of a family that secretes a large quantity of gastric juice and a small quantity of saliva and bile partake largely of carbo-hydrate and fatty food, he might easily become dyspeptic and hand on his tendency to his descendants. Here it is not the dyspepsia but the digestive peculiarity that is transmitted, since the inability to digest ceases on the selection of a diet more suitable to the idiosyncrasy, such as one composed largely of animal flesh and sparingly of carbo-hydrate. Soltau Fenwick found a hereditary predisposition to "weak digestion" in 34 per cent. of children, either one of the parents or another child in the family having suffered in a similar manner. The disorder is more common in the female than in male children, and it is more frequently transmitted through the mother than the father.

(d) Gastric Ulcer.

Although most authors are silent on the influence of heredity in gastric ulcer, still there are many authentic cases where it has occurred in members of the same family. Thus, in two instances, mother and daughter suffered from it, in one, father and daughter, in two, two

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(2) Space will not allow us to cite instances of these "food idiosyncrasies" and of their inheritance. *Ex uno disce omnes.* A few extracts from a letter of a distinguished *litterateur* to Sir Morell Mackenzie will suffice:—"My daughter tells me that you are interested in the ill effects which the eating of eggs has upon her, upon me, and my father before us. I believe my grandfather, as well as my father, could not eat eggs with impunity. . . . . But it was not a mere 'stomach-ache' that ensued, but much more immediate and alarming disturbance. An egg in any form causes within a few minutes great uneasiness and restlessness, the throat becomes contracted and painful, the face crimson and swollen."

(3) According to gastric specialists such as Boas, Ewald, and Stockton, *sixty per cent.* of gastric disturbances have *their origin outside of the stomach.*

sisters, in one instance a brother and sister. Dreschfeld considers that heredity plays a not unimportant part in gastric ulcer. Ewald, in discussing its etiology, states that it is only by assuming a "predisposition" that the much discussed question can be solved. And he brings forward the analogy of tuberculosis. Here numberless persons are exposed to the exciting cause, the tubercle bacillus, yet to acquire tuberculosis the predisposition is necessary. The probability of this predisposition is not lessened whether we accept the theory of "bacterial necrosis" as the cause of the local condition (Sydney Martin) or whether we attribute it to plugging of the nutrient artery by an embolus or thrombus and digestion of the resulting infarct by the gastric juice (Virchow). "The predisposition to gastric ulcer resides also in the disproportion existing between the composition of the gastric juice and the blood, as it is already recognised as necessary for the artificial production of chronic ulcer of the stomach in animals[4] (Ewald).

Seeing that anomalies in the condition of the blood enter largely as one factor in the etiology of gastric ulcer, and that in the various anæmias as has recently been pointed out, there is an appreciable diminution of the normal alkalinity of the blood—a diminution which helps to explain the other factor—the hyperacidity of the gastric juice, may not the hereditary transmission of the blood conditions in these cases have some bearing on that of the gastric ulcer?

(e) The heredity of rumination and gastric neuroses generally.

Rumination is sometimes hereditary. Thus Windthier described a Swede forty-five years of age, who had ruminated since his thirtieth year; his son also ruminated from his twenty-fourth year. Rossier described a father and son, aged respectively sixty-five and twenty-four years, both of whom ruminated. Darwin, from observation on human ruminants, states that any particular dish which had been eaten could be regurgitated at pleasure. In those cases the food returns to the mouth unchanged in taste, to be chewed and swallowed a second time. At the autopsy in Arnold's three cases of human ruminants, a saculated dilation of the œsophagus was found above the cardia. As rumination is due to a neurosis, and generally occurs in persons suffering from neuræsthenia, hysteria, epilepsy or idiocy, it, strictly speaking, is not a gastric disorder at all. It is not proper to speak either of this condition or of hour-glass contraction of the stomach as reversions,[5] since the human stomach during its development never presents itself otherwise than a single-chambered viscus. There is, therefore, no reappearance of a lost character.

Space will not allow us to refer in detail to the other gastric neuroses; but whether sensory, secretory, or motor, they are all to a certain extent hereditary, inasmuch as they occur in persons who inherit a neuropathic constitution, and not unfrequently occupy such a prominent place in the picture that the neuropathic character of the patient may escape notice. In support of this latter statement we need only point to what is known as Reichmann's disease.

Heredity i derangements of t liver.

No organ in the body discharges functions so varied and so complex as the liver. It is at once an organ of excretion and assimilation, and it plays a part, although a small one, in the digestive process. It has no action on proteids or carbo-hydrates; its secretion—the bile—emulsifies fats and aids in their absorption. The remaining functions, excretory, metabolic and glycogenic, can be deranged independently of each other, and there is reason to believe that heredity plays an important part in each of these derangements.

Heredity derangements of t excretory function.

Derangements of the excretory function are frequently hereditary. The group of symptoms usually called "biliousness," such as anæmia, furred tongue, bitter taste in the mouth, constipation, headache, feeling of depression,

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(4) The experiments of Daettwyler, Silbermann and others have shown that if an animal is rendered anæmic previous to the production of an ulcer in its stomach, instead of healing it becomes chronic and progressive.

(5) When a structure is arrested in its development, but still continues growing until it closely resembles a corresponding structure in some lower and adult member of the same group, it is considered as a reversion. Thus there may be two kinds of reversion: (*a*) Where structures normally suppressed attain to functional development, *e.g.* hypertrichiasis in man; the lanugo of the embryo, instead of being shed, continues growing till its possessor becomes hairy; other examples of this form of reversion are a right aortic arch in a mammal, muscle tissue in the segment of a cardiac valve, lumbar ribs with a corresponding functional *levator costæ* muscle. (*b*) Where organs or tissue return to an original type. Many examples of the reversions of organs occur in plant life. Goethe first drew attention to this fact in his work "On the Metamorphosis of Plants." An example of reversion of tissue is supplied by patches of hair-covered skin which occasionally grow on the ocular conjunctiva. The conjunctiva is but a modified skin, and now and then declares its ancestry in this way. Supernumerary mammæ, if occurring in the line of the deep epigastric arteries, are reversionary, in other regions they are to be considered as "sports." Supernumerary digits are due to dichotomy, they cannot be regarded as reversions, since no vertebrates except fish and the extinct *Ichthyosaurii* possess more digits than five on each limb. If they were reversions, it must be to either a fish or Ichthyosaurian form; the leap is too great, without any intermediary. Now in the case of human ruminants, even when there are œsophageal diverticulæ or in hour-glass contraction of the stomach every condition of reversion is absent; there is no arrest of development. All such deformities have been observed in adults; no one has ever found either condition in a child. Again, the ruminant's stomach is a very highly specialised organ—and when an organ or tissue reverts at all it is to a more primitive type. The extreme specialisation of the ruminant's stomach is its fatal weakness. Retention and stagnation of its contents is so easy that even slight indigestion in the cow may result seriously. Fermentation balloons the four chambered stomach until it fills the abdominal cavity, bulges up the flanks, and causes such pressure on the heart and lungs that death takes place with frightful rapidity, sometimes in less than an hour from onset. Prompt relief to this condition is only afforded by puncturing with a trocar the bulging paunch in the left flank.

etc., usually runs in certain families. These symptoms are easily induced in some persons by the use of rich or indigestible food, by sedentary habits, especially after middle life, and the tendency to them is often transmitted from parent to child. As Budd wrote many years ago, "a person is born with a tendency to biliary derangements. This innate defect of power in the liver has its counterpart in the deficient respiratory power in persons with vesicular emphysema of the lungs, and, like the latter defect and most other peculiarities of physical structure, is no doubt frequently inherited." One man becomes "bilious" from slight causes, at least from such as are harmless to normal mortals; another escapes with impunity, no matter to what severe tests he may put his digestive capacity. In some the liver seems just capable of discharging its functions under favourable circumstances; should occasions arise that subject it to a greater strain, it is unable to cope with the emergency—it becomes deranged and its possessor becomes bilious. This innate incompetence of the liver is often inherited, and popular belief in such a predisposition finds expression in the trite saying, "one man's food is another man's poison."

"Biliousness" frequently due to an extrahepatic cause.

It is here necessary to enter into a slight digression. In the preceding paragraph, the symptom-group known as "biliousness" has been associated with derangement of the liver, partly because such an association bulks largely in the minds of many persons yet, who are under the sway of the traditional teaching of Murchison and Budd, and partly because it helps to simplify our notions as to how heredity acts in those cases. It must be borne in mind, however, that the general outcome of all investigations since Murchison's time goes to show that the liver in such cases is not always the active agent that he supposed, that it is as much a sufferer as the cause of suffering. When, in common parlance, we say the "liver" is deranged or out of order, we do not necessarily mean that the liver is primarily affected. The disturbance in many cases arises from morbid conditions in the bile ducts preventing the proper excretion of bile, and in other cases from faulty products of digestion poured into the portal blood. In hepatic derangement, the most important factor is diminished fluidity, with lessened flow of bile. This may be the outcome of defective secretion on the part of the liver cells, but another more frequent and more potent factor is increased resistance to its flow along the bile passages. This increased resistance may arise from sluggish peristaltic action of the bile-expelling apparatus—the walls of the bile-ducts and gall-bladder—or from increased secretion of mucus, producing a corresponding viscidity of the bile. This increased secretion of mucus is in turn the result of irritant products excreted in the bile. These irritant products may be formed elsewhere than in the liver, being conveyed to it in the portal blood. So that the condition that underlies the state of "biliousness" may and frequently does own an extra-hepatic cause. When we speak then of the "liver" being deranged, or when we say a person is "bilious," we do not necessarily mean that the liver is the primary agent. The *fons et origo mali* may be in the bile-secreting apparatus, in the bile-expelling apparatus, in extra-hepatic conditions such as a catarrhal or congested condition of the orifice of the common bile duct, or it may be irritating substances formed elsewhere passing into the portal vein and depressing the action of the hepatic cell. With this understanding of that pathological x—the "liver"—we can now proceed.

Stadelmann's experiments with toluylendiamine give us some idea of the changes which underlie such conditions as biliousness, cholelithiasis, etc. When this drug is administered to a dog with a biliary fistula, it is found that the quantity of bile secreted is at first greatly increased. Next, its quality is altered, and it becomes thick, viscid, and tenacious, it flows with difficulty through the ducts and the quantity which issues from the fistulous opening in the gall bladder becomes diminished. The viscidity of the bile causes a certain amount of resistance to its passage through the ducts in the liver itself, and will produce jaundice even in an animal with biliary fistula. In a normal animal, the additional resistance presented by the common bile duct to the flow of viscid bile through it, will cause greater absorption and more intense jaundice. These observations go to show the important part played in hepatic derangement by products excreted in the bile which have an irritating influence on the epithelium of the bile passages. . . Increased secretion of mucus from the mucous glands of the larger bile ducts and gall bladder produces increased viscidity of bile and increased resistance to its flow, some of the bile constituents are absorbed in consequence, producing that icteric tinge of the conjunctiva characteristic of the condition termed "biliousness." If these conditions persist, repeated irritation of the lining of the bile passages promotes a tendency in them and in the gall bladder to catarrh. Catarrh leads to the production of some of the chief changes that underlie the formation of gall stones, such as stagnation of bile, increased formation of chlolesterin and inspissated mucus by the epithelium of the bile passages and precipitation of bilirubin-calcium.[6]

We would expect then, seeing the close relations existing in conditions underlying biliousness and gall-stones, that if one ailment is more or less hereditary, so is the other. *A posteriori* proofs of this *a priori* chain of reasoning are not easy to obtain. But whatever facts we have support it. Thus Fauconneau-Dufresne asserts that gall-stones are frequently hereditary. He bases his assertion on the experience of the the bath physicians at Vichy, who have so many opportunities of observing every kind of liver disease. Riedel lays great stress upon the heredity of cholelithiasis. Kehr, in his monogram on gall-stones, says that in many families cholelithiasis is very much at home. Burney Yeo states that he has seen some remarkable instances of the influence of heredity in the causation of gall stones. As it is probable that the metabolic, as well as the excretory function of the liver is disturbed in the case of gall-stones, we shall reserve any further remarks on the heredity of gall-stones till we have considered how derangement of the metabolic functions are affected by heredity.

Heredity of derangement of metabolic function.

As we have already seen when referring to gout, the metabolic function of the liver is easily deranged in some persons, and the tendency to such derangements is frequently inherited. If it be true, as Luff's investigations seem to prove, that the uric acid of the body, which is not of nuclein[7] origin is formed in the kidneys from urea and glycocine brought from the liver, it is easy to understand that alteration in the metabolism of the liver must affect the formation and excretion of this uric acid. An easy explanation would be afforded of the common association between liver troubles and gout, and that of that strange relationship which is known to exist between the two representatives of the uric acid diathesis—gout and gravel. It is strange that while these two diseases are so little related in their symptoms, yet that the predisposition to them may be transmitted in certain families, sometimes as gout, sometimes as gravel. "We have married two sisters," wrote Erasmus to a friend. "you have gout, and I have gravel." That there is little relation in their symptoms and course is evident from a study of the diseases themselves. The great majority of gouty persons never suffer from gravel, and conversely, only a small percentage of persons affected with uric acid gravel suffer from gout. The geographical distribution of each is largely different. In Scotland, where gout is rare, gravel is comparatively common; nor is there any correspondence between the prevalence of the two diseases in England. Those counties that have a high mortality from one, have a low death-rate from the other. The chief gravel district in England—Norfolk—is relatively free from gout. Gout is practically unknown among the natives of India, and yet uric acid gravel and calculi are common. And the same may be said of Denmark.

As we compare the two diseases we realise still more how little related they are in their symptoms and course. They each, it is true, represent a departure from the physiological combination of uric acid — quadriurate. In gravel, the deposit takes place in the urinary passages as *free* uric acid; in gout, it occurs in the tissues as a chemical combination—the biurate. In the one, the deposit is outside the economy in an excretion and the urine governs the situation, and gives the indication for treatment. "High acidity, poverty in salines, low pigmentation, and high percentage of uric acid favour the deposit" (Roberts). In the other the deposit is inside the economy, and the urine gives little or no therapeutic indication. Sir William Roberts fails to find any direct object in the administration of alkalies in gout and has seen gouty attacks occur with full severity when the urine had been for a long time maintained persistently alkaline by the administration of bicarbonate and citrate of potash.[8] Yet, when we look to both diseases—not as they occur in the individuals or in one generation—but in a cycle of two or more generations—we realise no matter how different they may seem—no matter how little related they may apparently be—that the two tendencies are closely connected, and that the two affections probably rest on a common basis in spite of evident differences in their symptoms and course. May it not be that the same constitutional vice, the same peculiarity or anomaly of metabolism, modified by some

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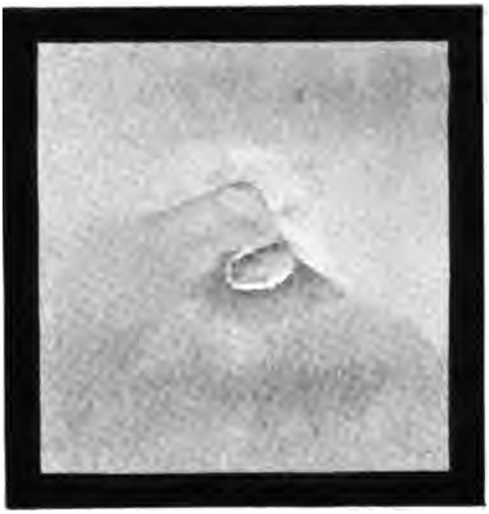
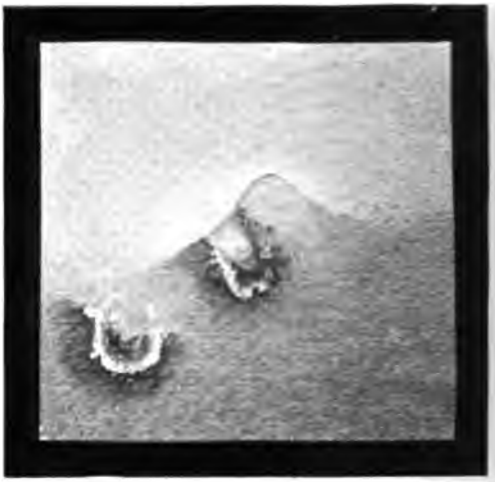
(6) According to Naunyn, the origin of cholesterin of the bile, as well as of the lime salts, is to be traced to the mucous membrane of the biliary passages, particularly when inflamed. The lithogenous catarrh, according to him, modifies materially the chemical constitution of the bile, and favours the precipitation round epithelial débris and bacteria of the insoluble salts of lime in combination with bilirubin.

(7) Recent observations show that uric acid may have more than one origin in the body, not merely by the synthesis of urea and glycocine in kidney (Luff), but independently from the nuclein constituents of cells generally, especially lymphatic cells.

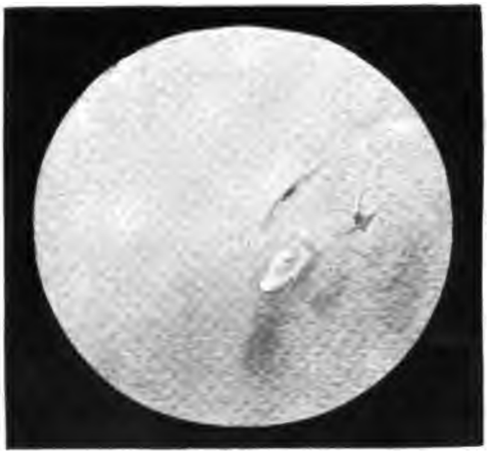
(8) Luff's and Levison's experiments prove that the administration of alkalies, with the object of removing gouty deposits, is useless.



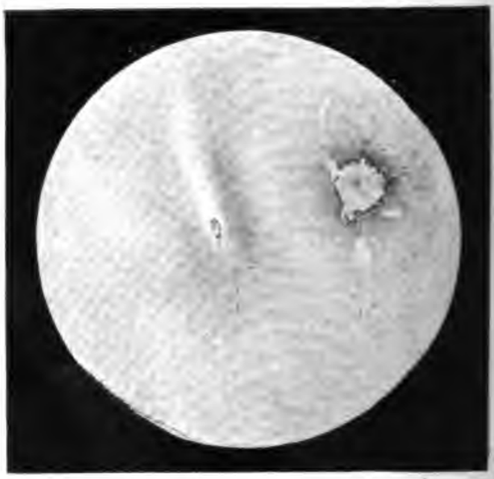
1.—Tubercular Ulcer in Woman, 32.
Orifice of Ureter.



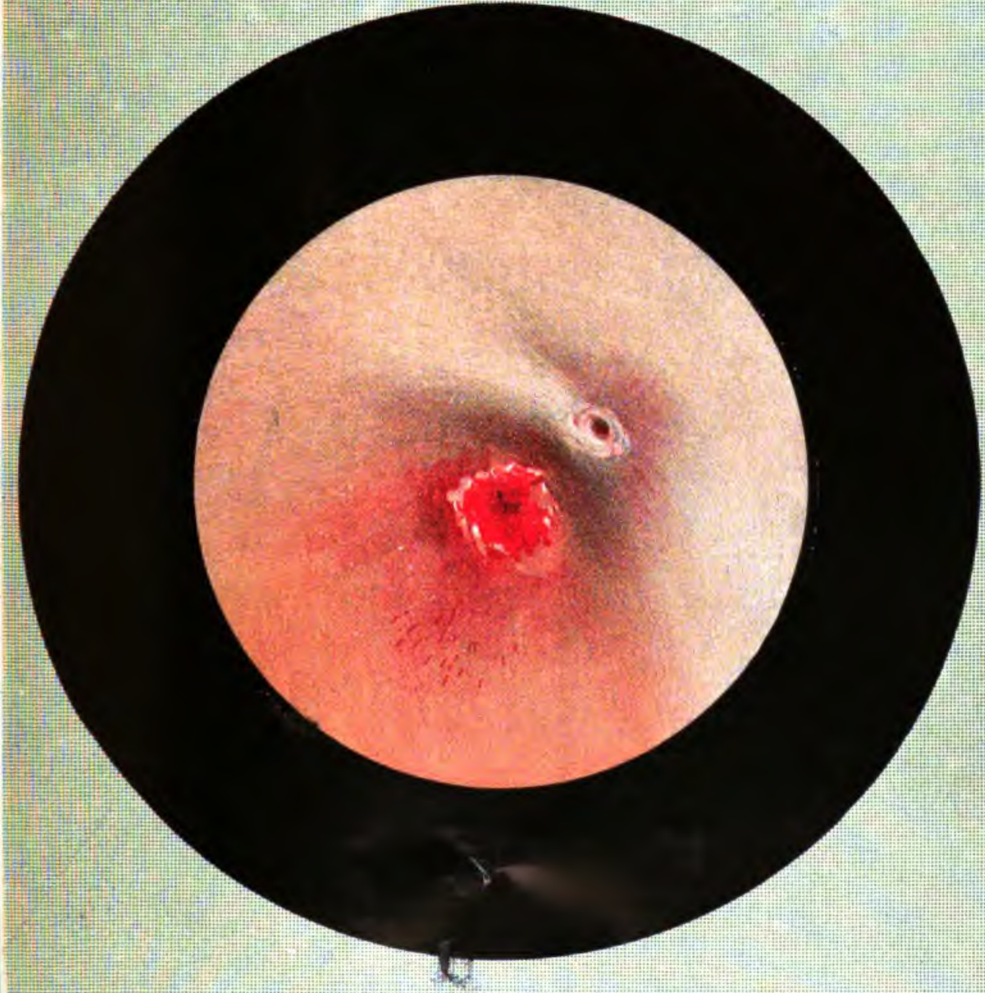
2.—Tubercular Ulcers in Man, 58, with
Tubercular Prostate and Testes.



.—Simple Ulcer, with Nine Months' History.
Woman, 38. Bladder otherwise Healthy.



4.—Simple Ulcer in Woman, 34. Two Years' Histor
Bladder otherwise Normal.



A Superficial Tubercular Ulcer
Alongside Orifice of Right Ureter,
In Boy of Ten.

controlling agency which we do not yet understand, determines in one person a deposit of sodium bi-urate in the tissues, and in another a precipitation of free uric acid in the urine. Levison, whose experience in Denmark, where the tendency to gravel is common, entitles his opinion to respect, states :—"Gout and gravel appear to alternate in certain families Some members suffer from one, others from the other affection. It is established that the predisposition to these diseases may be transmitted in certain families sometimes as gout, sometimes as gravel. The two diseases must, therefore, depend on a common cause."

We are prepared, then, to expect if one disease is hereditary, so is the other. We have already seen that gout is markedly under the influence of heredity, have we any authority for stating that the tendency to gravel is transmitted. Levison considers hereditary predisposition the most important of all etiological factors in gravel. "So general is the hereditary predisposition to gravel," he says, "that the physician may confidently expect in a family, the father or mother of which suffer from lithiasis, to find symptoms of this affection in one or several of the children."

It is well to bear in mind that the relationship here referred to between gout and gravel only applies to uric acid deposits in adult life. In children, no such relationship exists, as although the children of gouty stock may suffer from uric acid concretions, yet, in the vast majority of cases, no such connection can be traced.

The heredity of stone will be referred to under "Diseases of the Kidney."

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tions.

Although the pathology and etiology of diabetes are still shrouded in obscurity, there can be no doubt that one form of the disease—the hepatic—bears a close relation with the normal glycogenic function of the liver. Some years ago, to mention heredity as a predisposing cause of this affection would be to excite ridicule; now, however, there is a constantly increasing testimony as to its hereditary character. Not only have several brothers and sisters in certain families become diabetic, but there are some instances recorded where every child suffered from the disease. Thus, Isenflamm reported many years ago an instance of diabetes in seven brothers, who all died at the age of seven or eight years. Roberts observed eight diabetic children in the same family. Watson, Bence-Jones and West, each saw three brothers affected. There would also seem to be a racial predisposition to this disease. Hebrews are especially prone to it; one-fourth of Frerichs' patients were of the Semitic race, and of 16 cases which Osler had in private practice eight were in Hebrews.

Parents and grandparents have transmitted this predisposition to their children and grandchildren. In some cases the transmission has been to the third and fourth generation. Thus, in one instance the disease was first observed in the great-grandmother; of her children, who were many, only one had a family, and this one had diabetes; of his children, two died of diabetes, a third suffered from rheumatoid arthritis, and the fourth, who was killed early in life, left a son who became diabetic. In some cases the transmission is to the same sex. Thus, an instance is related where three brothers suffered from the disease, while the sisters escaped. In other cases, the heredity seems to have undergone metamorphosis in transmission. Thus, sometimes, the parents and grandparents have not suffered from diabetes, but they have from what some consider allied pathological conditions. In this connection gout and rheumatoid arthritis seem to have the most influence. According to Dr. Emil Kleen, whose experience of diabetes at Carlsbad has been very extensive, fully a quarter of all cases of diabetes have a *direct* diabetic hereditary predisposition, while a neurotic heredity is present in the great majority. According to this authority, several members of the same family are often found exhibiting different forms of the disorder; some will suffer from slight glycosuria, others from mild diabetes, and others some from diabetes in a severe form. "In a large number of cases it will be found," he says, "on careful investigation, that the diabetic patient is the descendant of a diabetic." Many cases of heredity of diabetes are recorded by Blumenback, Brisbane, Prout, Pavy, Dickinson and Senator.

Various functions of the liver mutually related and dependent on each other.
Co-existence of biliary calculi and renal gravel.

We have now glanced over the influence of heredity in the derangements of the excretory, metabolic and glycogenic functions of the liver; and although for descriptive purposes we have assigned to them a certain independence—an independence supported within limits both by experiments and disease, yet we would guard against the mistake of regarding them as always divorced from each other. That they have many close relations and are mutually dependent on each other in many ways is evident from many facts physiological and pathological. Thus it may be difficult to explain any connection between the occurrence of biliary calculi and renal gravel, yet their frequent co-existence has been often attested. We have the authority of

Baglivi and Morgagni for their frequent presence in the same person. Murchison states that he has had many opportunities of verifying the clinical fact of the frequent association of the lithic acid dyscrasia and gall stones. The late Prof. Trousseau insisted on the intimate relation between these two disorders, and between each of them and gout. Lastly, Burney Yeo holds that persons who inherit the gouty diathesis are specially prone to biliary as well as to renal calculi. The relations of gout and glycosuria will be referred to later on under the heading of hereditary obesity. It will be shown that an inherited disorder of metabolism may show itself in different forms in different members of the same family. One member may have gout, another glycosuria, while extraordinary obesity may be found in others. All this forcibly reminds us of what has been referred to in any earlier portion of this paper as transformation in transmission.

The bearing of *remote* ancestral tendencies of the food-tube on its diseases.

When we view the food tube as a whole in the light of evolutionary pathology, we are struck with two features especially: (*a*) that it is the oldest organ in the body, hence man has been defined "the stomach and its appendages"; (*b*) that it is one of the organs least affected with disease. Organs that are biologically recent are generally pathologically susceptible, and conversely those that have a long ancestral history are correspondingly resistant. Compare the vulnerability of the lung, which appears for the first time at the amphibian level with the comparative immunity of the stomach, which goes back to the hydra. Again, even in the food tube itself, those parts that are anatomically variable in different species, such as the pylorus, the cæco-appendix, the œsophagus, the oral and anal orifices, are remarkable for their disease tendencies. The pyloric region of the stomach, the degenerate descendant of the "gizzard" of birds, and the "grinding stomach" of the ant-eater is the seat of election, in the tube, of cancer and gastric ulcer (nearly 40 per cent. of the latter affection, and 40 per cent. of all cancers of the entire canal occur here) The mammalian history of the cæco-appendix, together with its embryonic development,[9] display its extreme variability, and its surgical and medical record shows too plainly its sad susceptibility to disease. The œsophagus, the site in many lower forms of life of "crops," and in higher mammals, *v.g.*, the horse, of *jabots*, which not infrequently require surgical interference, is in man prone to malignant disease. Lastly, the oral and anal orifices are two border-lands between freetrade cutaneous epithelium, with its hair and sweat glands, and the protected epithelium of mucous membrane.

As Culbertson has pointed out, sebaceous glands are sometimes found in the mucous membrane of our cheeks and lips, while mammals not unfrequently develop hair in the buccal pouch. Is it any wonder that the cells in these regions, undecided as to whether they were to enroll themselves under the banner of "freetrade" cutaneous or "protected" mucous, not unfrequently decide on a rebellion against both and against the organism by becoming an "*independent* new growth?"

Susceptibility of various organs t disease due to i heritance

Notwithstanding the well-marked correlation that exists between the phylogenetic age of an organ and its pathologic resistance, yet each organ has special susceptibilities of its own. Witness the respective susceptibilities of the lungs and liver to certain forms of malignant neoplasms, and in an inverse order to tuberculosis. In the latter disease the bacillus is present in the blood, and is conveyed through the liver, more frequently, perhaps, than through any other organ, yet it does not effect a settlement there. In the lung it is quite otherwise, it there finds a congenial home, and settles down. This difference in the susceptibility of organs must be the result of inheritance, for it differs in different species of animals. Avian, bovine and human tuberculosis have each, one or more

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(9) Man is the only animal that suffers from appendicitis, nor is the reason far to seek. His cæco-appendix is at present in a transition stage, on the road to occlusion and atrophy. He is yet undergoing a process which has already largely been accomplished in the Carnivora. The cæco-appendix consists of two portions—cæcum and appendix. The only species in which an "appendix" occurs are the wombat, certain rodents, anthropoid apes, and man. The cæcum is very variable in different species, and free from disease in all, though from different reasons. In those classes where it is well-developed and still functional, as in the Ungulate Herbivora, it is no more prone to disease than the rest of the canal. In the horse, where it has undergone great development, being two and a half times the capacity of the stomach, it is a source of danger, rendering the animal liable to very fatal attacks of tympanitis and acute distention, and causing death in the same manner that a similar distention in the stomach does in cows. In the Carnivora it is as exempt from disease as it is in the Ungulate Herbivora, though for an opposite reason. The appendix has disappeared altogether, and the cæcal portion has dwindled to a small recess; in bears and badgers even this has gone. One might at first sight consider the Carnivorous cæcum as the primitive type of the organ, but descending lower in the scale checks this hasty conclusion. The fact of its being well developed in reptiles and birds—it is even double in the latter, and well-marked in marsupials—goes to show that the Carnivorous cæcum is a very reduced form of a larger ancestral type. In other words, the Carnivora have got rid of this dangerous pouch. Now there is reason to believe that a similar process is at present taking place in our own species. The relative proportion of the cæcum to the colon in man varies at different stages: In early fœtal life it is 1:5½, at birth 1:11, at full manhood 1;20. Not only does this relative change take place, but another process goes on both before and after birth, by which the lumen of the appendix becomes either partially or totally closed, and at the age of 40 or 45 it is occluded in fully 50 per cent. of cases, hence the rapid diminution of appendicitis after these ages. There is some reason, then, to indulge in the hope that at some future time our species will be altogether exempt from appendicitis, a consummation to be devoutly hoped for. The proneness of the appendix to infective inflammation depends on three factors—(*a*) the process of occlusion just referred to; (*b*) the fact that its walls are largely composed of adenoid tissue, any swelling of which readily blocks the tube; (*c*) being a vestigial structure its resistance is low.

favourite anatomical sites. The chief stress of avian tuberculosis falls on the liver, of bovine on the serous membranes, especially the pericardium and pleura, and of human on the lungs. In the guinea pig, or in the ox, if the tubercle bacillus be implanted on the liver it produces lesions similar to those in the lungs. Again, if a series of rabbits, and a series of guinea pigs be inoculated in the same part of the flank, from the same culture, in the former the kidneys will be affected, in the latter the spleen will be attacked, and the kidneys will escape (MacFadyean). This proves that the difference of susceptibility in different organs is the result of inheritance.

Not only organs but portions of organs are specially vulnerable, witness the susceptibility of the apex of the lung to tubercle. The reasons usually alleged for this vulnerability are not satisfactory. It is probable that the apical region in man is undergoing retrogression. There are reasons for believing that a symmetrical tri-lobed lung, with paired eparterial lobes was the ancestral condition. On the left side the eparterial system of bronchi has disappeared; on the right atrophic traces of the system still linger. In domestic cattle the posterior extremity of the lung is the portion with the greatest tendency to recession—and this is the most frequent point of attack of tuberculosis in cattle—so that in the bovine and human species the region of instability is the *locus minoris resistentiæ* to tubercle.

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Clinically, diseases of the kidney are divided into two great classes—the parenchymatous and the interstitial. As these bear a very close relation to the two-fold origin of the kidney, from the epiblast and the mesoblast, it will be well to refer briefly to the ancestral history of this organ. The kidney goes back to the annelids; in each segment of the earthworm a pair of coiled epithelial tubes known as nephridia, extend from the cælom or peritoneal cavity to the exterior. These suck up the nitrogenous waste directly out of the body fluid, and convey it to the surface. As we ascend to higher forms, this ground plan, though varying in details, is maintained. The inner extremity instead of sucking waste materials from the cœlom filters it from a blood coil—the Malpighian tuft—which invaginates itself into the end of the tube. In vertebrates, which on many grounds are considered to have had an annelidan ancestry, the outer end of the segmental tubes open not immediately on the surface but into a general segmental duct (Wolffian duct). Now, the researches of Rückert and Van Wijhe have practically settled that the Wolffian duct and the tubules of the permanent kidney (metanephros) are derived from the epiblast. They have proved that the Wolffian duct in primitive vertebrates was a groove on the exterior, which, subsequently, like the medullary groove, closed over and became separated from the external epiblast. Previous to this discovery, when the entire kidney was considered to be of mesoblastic origin, it was puzzling to trace how primary cancer of the kidney could arise, and also how it was that the two classes of kidney disease above referred to should manifest such different sympathies. These two groups—the parenchymatous and interstitial are sharply differentiated from each other in their causation, mode of attack, course and symptoms, though either may extend to the domain of the other. The sympathy of the parenchymatous group is markedly with epithelial surfaces, notably with the skin. We notice this affinity in the nephritis following cold and wet (damp cold chills the surface of the body more severely than mere cold), or in that supervening on extensive lesions of cutaneous surface, either from burns or skin eruptions. The relations of the interstitial group are no less close with the vascular system. We observe the connection in the peculiar character of the pulse, in the hypertrophy of the left ventricle in the thickenings of the arterioles throughout the body, in the atheromatous degenerations, and the resulting tendency to hæmorrhages, especially in the cerebral vessels giving rise to apoplexy, and other hæmorrhages less formidable retinal, intestinal, pulmonary and epistaxis. This intimate connection of the uriniferous tubules with the skin, and of the glomeruli with the vascular system is due to community of ancestry, the former pair being derived from epiblast, the latter from the mesoblast.

(a) Parenchymatous nephritis.

Now as there are some persons who inherit incompetent livers and feeble chests, so there is reason to believe that the uriniferous tubules in some families are inherently frail, and that the epithelium lining them is ill adapted to resist adverse influences, and when such circumstances arise they are predisposed to take on diseased action. The hereditary tendency to tubal nephritis, both acute and chronic, though not so marked as in the interstitial form, yet undoubtedly exists, and in some instances may be traced generations back. Thus Ralfe states that he saw a lad of 19, two of whose brothers had died previously of acute nephritis. He also had a man, aged 35, as an out-patient at the London Hospital with acute nephritis, whose father died of Bright's disease at the age of 47, and also a brother. An instance is related where chronic tubal nephritis occurred through four generations, affecting fifteen individuals of the same family.

(b) Interstitial.

Many remarkable instances of the hereditary transmission of the interstitial form have been recorded. Families in which the arteries tend to degenerate early, whose "vital rubber" is of an inferior quality, are more prone to interstitial nephritis. In such families the onset of this condition of the kidney is of the nature of an involution process—a sort of premature senility, an anticipation of the changes that take place in extreme old age. The renal arteries deteriorate and the connective tissue of the organ increases at the expense of the more vital constituents. The ordinary exciting causes of the disease, such as gout, alcohol, lead, and syphilis, promote the advent of these changes, but even in the absence of these, the influence of heredity may be so great as to be the sole cause. Thus the following instance is related by Tyson, in which there was a complete absence of any of the exciting causes: A man 30 years old, suffering from interstitial nephritis, consulted him. Both the father and mother aged respectively 56 and 63 years, were affected with the same affection; the mother had convulsions. A brother died from the same ailment at the age of 36. Two children of this brother had Bright's disease, one at the age of 4 and the other at 7 years. A second brother died, at the age of 29, with convulsions; a third and fourth brother, aged 23 and 32 years, have had interstitial nephritis for five years. A maternal cousin died of this form of kidney disease, and other members of the family belonging to previous generations died with symptoms which suggested the disease.

In this connection it is well to recall what has elsewhere been referred to, namely, the hereditary tendency to arterio-sclerosis. Although arterio-schlerosis more commonly arises from the "bad use of good vessels," still there is reason to believe that in certain families even good use of bad vessels will not prevent the early onset of this condition. That heredity plays an important part in many cases is evident from the fact that in the absence of the usual etiological factors, the members of certain families at middle age present vessels as much degenerated as others do at extreme old age. In those families a man of 30 years may have the arteries of a man of 60.

We know that apoplexy is one of the most strikingly hereditary of all diseases; cases of cerebral hæmorrhage frequently run in families; thus an instance is recorded where a lady aged 41 years, during a violent attack of sea-sickness, became unconscious; she was subsequently conveyed to hospital, where she died. A large hæmorrhage was found in the lateral ventricles; nine members of her family died in a similar manner. Of the two great exciting causes of apoplexy, namely, arterio-sclerosis and interstitial nephritis, it is considered that the latter affection is responsible for fully 50 per cent. of all fatal apoplectic disease. If apoplexy, then, is to a large extent hereditary, we are prepared to realise that a tendency to such an active agent in its causation as interstitial nephritis runs in families. Interstitial nephritis and apoplexy are met with as alternate conditions in different members of the same family; thus the following family history was elicited from an insurance candidate who was himself suffering from interstitial nephritis, of which he subsequently died:—His maternal and paternal grandmothers died of apoplexy, aged 63 and 45 years respectively. His father and mother died of the same disease, the former at the age of 45, the latter at 40 years. One brother, at the age of 45, died of interstitial nephritis, another of heart disease at 43, and a sister of apoplexy at 55 years.

The nature of the relation between interstitial nephritis and the accompanying vascular condition, has long been the subject of controversy. As a solution of the vexed question as to whether in interstitial nephritis the kidney is the cause of the vascular condition, or the vascular condition the cause of the kidney mischief, or whether they are both results of a common cause, it seems to us, from the light thrown on the evolution of the vertebrate kidney, from the study of the embryology of the organ in invertebrates, that while two clinical types of the disease must be admitted, one accompanying general arterio-sclerosis, and the other where the sclerotic change is limited, at least for a time, to the intra-renal portion of the vascular system, and where, therefore, the disease *appears* to be a primary kidney affection, that these two clinical types have a common pathological cause, and that each type is determined by the relative priority of incidence of the sclerotic change on the intra-renal and extra-renal parts of the vascular system. Greenfield holds that the primary change in most instances is in the glomeruli, to which both the degeneration of the epithelium of the convoluted tubes and the increase in the connective tissue is due. It would not be rash, we think, to go a step further and say that the primary change, in all cases of interstitial nephritis, is in the vascular glomerulus.

The essential elements of the kidney throughout all the ages as we ascend the animal scale are remarkably uniform—a blood coil derived from the mesoblast (Malpighian tuft) thrust into the embrace of the sacculated end (Bowman's capsule) of a tubule derived from the epiblast. This two-fold ancestry of the kidney—the mesoblastic origin and sympathies of the filtering portion—the glomeruli, and the epiblastic origin and sympathies of the true secreting portion—the tubuli contorti—is further accentuated by the difference of blood supply. The convoluted tubes are surrounded by capillary vessels derived from the breaking-up of the efferent vessels of the Malpighian tufts. In some amphibians (newts) there are two distinct vascular supplies, one from the renal artery to the glomeruli and another from the renal-portal vein to the convoluted tubes, so that the origin, function, and vascular supply of these two portions of the kidney are different.

Is it any wonder that in disease they would display corresponding different sympathies that the tubuli uriniferi would sympathise with the skin from which they are descended, with their cousins the coiled tubes of the sweat glands, with which a portion of them—the tubuli contorti—yet bear a striking histologic resemblance—that the sympathies and sorrows of the glomeruli should be with its mesoblastic cousin tissue, the vascular system? Throughout this system vigour and safety depends on contractile power. Substitution of fibrous and calcareous tissue for muscular means loss of contractile power and danger, whether in kidney, brain, or liver. The primary degeneration of the glomeruli that occurs in interstitial nephritis is but local manifestation of a general tendency to arterial decay—a proof that in the get up of the renal machine bad tubing was used for the filtering gear. In this way we can understand how it is that numerous cases of transmission of interstitial nephritis from father to son are recorded, although both were abstemious in eating and drinking; bad renal vessels were handed down, and here, as elsewhere, longevity is a vascular question.

edity in
ulus
ation.

Passing now from the medical to the surgical diseases of the kidney, we come to consider the influence of heredity in the formation of stone. And as uric acid calculi are by far the most frequent, constituting over 80 per cent. of all calculi that come under observation, we shall confine our remarks to this class. We have already seen that one factor in the production of stone, namely, the deposit of crystals of uric acid is markedly hereditary. In addition to this, we have to reckon with another factor, namely, the presence of a colloid substance, which may be altogether due to some local cause. The experiments of Rainey Ord,[9] Vandyke Carter, and others have shown that "urinary calculus is not an accidental agglomeration of solids, crystalline and amorphous, in a cement of mucus," but that it is a massive crystallisation of urinary ingredients in a colloid substance," the formation of which takes place according to a definite law. The presence of some colloid substance, such as mucus albumen pus, etc., is a condition *sine qua non* of calculus formation—if it is absent, the crystals will pass out with the urine in the well-known cayenne pepper or brick-dust deposit. It is probable that the mucous membrane of the urinary passages, and the cells which line it, are not mere passive agents; but that they furnish the colloid medium which modifies the crystalline form into the submorphous. It is difficult to say how heredity affects this second factor. It is true Dr. Owen Rees regards this colloid medium as due to a gouty catarrh, but as calculus is not unfrequently met with in persons who have never shown any evidence of having suffered from catarrh, gouty or otherwise, this will not help us much. That stone occurs in certain families with exceptional frequency does not necessarily prove that it is hereditary; since it may be due to local causes, such as meteorological conditions, nature of the soil, water supply. Practical graziers are well aware that calculus complaints are rare among cattle kept in paddocks, where they drink chiefly the rain-water from ponds and ditches, while cattle kept in the farmyard, such as bulls and stock for market, when their water supply is taken from wells, are frequently affected. Again, both horses and cattle instinctively turn from a bucket of clear, spring water to the muddy, polluted pond, showing that they prefer soft to hard water.

But while making every allowance for the important part played by local causes in stone formation, still so many cases are recorded in the members of the same family that it is almost impossible not to admit a hereditary tendency. Thus Cadge wrote some years ago, "In five instances I have operated on brothers, and in four other instances I have operated on one brother and other surgeons on another. Mr. Clubbe, of Lowestoft, has given us a curious history of a stone family: Three brothers were cut for stone by Mr. Clubbe; a fourth passed a stone; a fifth child died aged

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(9) On the influence of Colloids upon crystalline form and cohesion.

three months with every symptom of stone; a female child now has vesical irritation and bloody urine; the father and mother are constantly passing large quantities of lithic acid; the grandfather passed one stone and the grandmother seven; a great-uncle was cut for stone, and six uncles and four aunts all suffer either with fits of gravel, or from lithic deposits, and to finish, a cousin passes calculi. There is considerable historical testimony in favour of this hypothesis. We know that Montaigne and his father both died of stone in the bladder, and we remember how he moralises on the incomprehensible wonders of the hereditary transmission of mental and bodily resemblances and infirmities. The celebrated minister, Sir Robert Walpole and his brother Horace, were both afflicted with stone, and their mother also had stone."

Gaubius assisted at a lithotomy performed on a boy of ten years, whose father had undergone the same operation twenty-five years before. Gaubius compared the stones taken from the father and son, and found they were alike in every respect, except in size, the father's being larger than that of the son. Many similar instances might be cited that tend to show there is a family predisposition, not only that, but race seems to have some influence over stone formation. The coloured races in America are remarkably free from calculus, and in Egypt the negro escapes, whilst the Arab suffers.

Heredity in Diseases of the Skin and its appendages.

Considering that the teeth, from a morphological standpoint, are but calcified skin papillæ, capped by a layer of epidermal cells peculiarly modified, we may appropriately consider how these structures are affected by heredity in this place. Although the skin and the teeth in their after development have become strongly differentiated from each other, yet many phenomena bespeak their close genetic relation. Inherited deficiency of the teeth, we are told, is associated with inherited baldness, and it is stated by Sedgwick[11] that in the rare case when the hair has been renewed in old age, its renewal has been accompanied by that of the teeth. Those mammals that are most aberrant in their dermal covering, namely, the cetacea and edentata, are also remarkable for the deficiency or redundancy of their teeth. Hairless dogs have generally deficient teeth. The tusks of the boar are greatly reduced under domestication, and the reduction is accompanied by a corresponding diminution of the bristles. And many cases are recorded in man where there were concomitant variations between these two cutaneous appendages—the hair and the teeth—and where the peculiarities of both were transmitted from parent to progeny.

Abnormalities of the teeth are often transmitted. Thus in one family it is recorded that the upper lateral incisors bit inside their corresponding lower teeth in the father and in three out of four of his children; the fourth child had not cut these teeth at the date of observaiton. In another family, father, son and grandson never had any lateral incisors in the upper jaw, a second son had them diversified, and some of the latter's children had them so stunted as to need artificial substitutes on the score of unsightliness. Weiss has recorded the transmission of peculiar additional lingual cusp in the upper molar from a father to six of his children. Numerous other instances might be cited, but the foregoing will suffice to illustrate the strong hereditary tendency of dental irregularities.

Heredity Dental Caries

The heredity of dental caries has long been, and is still, a fruitful theme for heated discussion. *Laudatur ab his culpatur ab illis.* It would serve no purpose to traverse here the arguments *pro* and *con* that have recently been brought forward, to prove that the disease is solely due to the nature of food stuffs employed; in other words, that it is all a question of chemical solution. While rendering to chemistry the things that belong to chemistry, there are good reasons for doubting that chemical solution covers the whole field of dental caries. All that has been demonstrated by those who have specially investigated the chemical aspect of the question is, that the aggregate proportion of lime salts do not, as was formerly supposed, differ very materially in good and bad teeth. It must be borne in mind, however, that the tooth is part of the living organism, that next to nothing is known of its organic constituents, and that even in the inorganic the salts may be different. We are giving to chemical solution all it should get, when we say that the initial stage is one of decalcification, due to an acid (lactic), that this is due to the fermentation of carbo-hydrates, and this fermentation itself is due to a micro-organism. But on the other hand, micro-organisms are unable to act on normal enamel, therefore, here as elsewhere, the quality of the tissue is a very important item.

There is another point which requires a passing reference before we state the case for heredity. The author of the recent work "The Cause and Prevention of Decay in Teeth," cites Weismann's theory as an argument against the transmission of caries, but while it would be

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(11) *British and Foreign Medico-Chirurgical Review*, April, '63.

quite justifiable to adduce the transmission or non-transmission of caries in support of or against Weismann's theory, it is manifestly illogical to bring deductions from a theory which is not yet verified and not even universally accepted, as we shall see later on, as a means of establishing a pathological fact. Many of the writers who enter the lists of controversy on the cause of dental caries fail to see the wood because of the trees, and many more view the subject from too circumscribed a horizon. If we extend our mental gaze from individuals and families to races, we shall find that the greater number of dental variations, pathological included, which are usually attributed to the direct influence of external conditions of life are really to be ascribed to *panmixia*, or the cessation of the controlling influence of natural selection. Dental decay is far more prevalent among civilised races of the present day than among the aborigines of Africa, America and Australia. On the authority of Mr. Mummery, we know that the Esquimaux, North American Indians, Arabs, Africans, New Zealanders, Kaffirs and Northern Indians possess sound teeth; these races are practically exempt from dental decay. Now, in current literature it is stated that though civilisation predisposes to caries it is uncertain in what way it does. But I think there is no uncertainty about the matter. In savage life sound teeth are such important organs considering the quality of the food and the coarse methods of preparation that those possessed of them are placed at an advantage and those lacking them at a disadvantage in the struggle for existence. A process of natural selection has been going on for ages, by which those individuals with bad teeth are continually being eliminated, and the race is continued by those who have inborn good teeth. In civilised life, on the other hand. owing to the improvement in the quality and preparation of the food there is no such need for good dental organs, there is a cessation of the controlling action of natural selection and a process termed *panmixia* takes place in which not only those individuals with well developed teeth have the chance of reproducing themselves, but also those individuals in which these organs are less well developed. Hence follows a mixture of all possible degrees of perfection which must result in deterioration of the average development of these organs. The greater number of these dental variations which are usually ascribed to the direct influence of external conditions of life, are then, to be ascribed to *panmixia*.

It is outside the scope of this paper to make any wider excursion into the domain of anthropology, but the little we have made gives us some insight as to how heredity does act in the dental caries of civilised man—nor is it a question of the transmission of an acquirement here.

What is transmitted is those innate structural defects in teeth which render their possessors more susceptible to the adverse influence of these various agents which directly or indirectly induce the chemical changes that take place in caries. These structural defects come under two broad classes: (*a*) The dental tissue may be good material, the dentine and enamel may be well formed, but as calcification commences in each cusp there may be imperfect coalescence of calcifying centres, something analagous to hare lip or cleft palate. These defects of form make vulnerable points, and it is quite in accordance with what has been laid down in other portions of this paper, that these should be hereditary. (*b*) The quality of the dental tissue itself may be defective, thus the fibrous character of the enamel may be permanently maintained. In normal development it is lost, owing to the blending of the prisms in the process of calcification. This condition which is really an arrest of development impairs the resisting power of the tooth and is frequently transmitted.

That these structural defects are strongly inherited is evident from the fact that not infrequently in several children of the same parents as they successively arrive at a certain age, the corresponding teeth become decayed. And if, it is stated, that similar conditions of life might account for the prevalence of caries in the members of the same family, then dentists of large experience will assure us that where there are two families having a common father and different mothers, the teeth of the two families differ *toto cælo*, and not infrequently follow those of their respective mothers. There is good reason then for doubting that dental caries is an acquired character. It would seem rather to depend on the greater variability of the teeth which necessarily results from cessation of selection. Hence, many individuals are preserved with innate structural defects in the teeth. These structural defects render the possessors more susceptible to the action of the various agents, which directly or indirectly induces the chemical changes that occur in caries. And in civilized life there can be no question that these innate structural deficiencies in the dental organs are transmitted in families.

Nor is this inherited predisposition so strongly marked in families confined to them; it extends to whole races and for the same reasons, namely, because of structural peculiarities or defective development. As Prof. Wedl. says, "If it be true that geological and climatic conditions, and the means of subsistence which are connected with the same, have such a preponderating influence in respect of the frequency of caries, then it is impossible to explain the fact that foreigners belonging to different races, who are exposed to the same conditions with the native inhabitants, still retain the typical structure of their teeth, as well as that of their bodies, and continue to furnish the proportion of dental caries peculiar to this race. This is found to be the case with the isolated Sclavonic races of Austria, and the descendants of the Celtic race in France.

(To be continued).

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NOTES ON A CASE OF MULTILOCULAR CYSTOMA IN AN OLD WOMAN.

By E. W. Way, M.B., University Gynæcologist, Adelaide Hospital, Adelaide, S.A.

The specimen of ovarian cyst which I show to-night is of interest on account of—1st, the age of the patient (73 years); 2nd, her emaciation and feebleness; and 3rd, the relative, as well as the absolute size and weight of the growth. The patient was brought to me by Dr. Woods, of Clarendon, who saw the case two years ago, when the tumour was about the size of a fœtal head, and he then urged operation. She has persistently declined this advice until now, when the immense size of the growth has by pressure caused vomiting of all food taken, inability to rest and sleep, œdema of the lower limbs, and great emaciation.

On admission to the Private Hospital, she weighed only 7 st. 3 lbs., and the weight of the tumour removed next day was 24 lbs. In addition, there was some ascites, this fluid approximately measuring 5 or 6 pints, so that the patient's weight after operation could not have exceeded 5 stones. The tumour was removed through the usual median incision extended upwards 3 or 4 inches above the navel, and was quite free from adhesions. It was first reduced by puncture of a large preponderating cyst to the extent of 13 pints of dark, glairy fluid; and the rest of the tumour, which had a broad thin pedicle, was secured by a Doyen's clamp and removed. The vessels being ligatured, the cut edges of the broad ligament were top sewn. The uterus and the left ovary presented the usual normal senile characteristics.

The patient soon recovered from shock, but her pulse was rapid, weak, and very irregular; and this condition was aggravated on the second day by persistent vomiting of large quantities of deeply bile stained fluid, and by a tendency to diarrhœa; so that her condition became critical. These symptoms were, however, got under control by the third day, since which her progress has been unretarded by any unpleasant symptom, and she is now practically out of danger. The operation was done a week ago, chloroform being administered throughout by Dr. Gerald Hayward, Dr. J. A. G. Hamilton assisting me.

It is not often that we meet with giant ovarian tumours nowadays, as these growths are usually dealt with at a much earlier stage of the disease. For this reason, and the others mentioned above, I have deemed the case of sufficient interest to bring under the notice of the members this evening.

A PLEA FOR EARLY CIRCUMCISION.

By H. G. H. NAYLOR, L.R.C.S., L.R.C.P. EDIN., ROCKDALE, SYDNEY.

I HAVE been struck, after many years of practice, by the number of children who have suffered the consequences of long and constricted foreskins, and the disastrous results from delayed circumcision.

I am quite sure that many practitioners forget to examine the private parts of newborn male children, or do not think it worth while to do so. Nurses never do so, and would not know of any abnormality if they did examine.

Hence numbers of children suffer for months, and some for years from this very easily remedied condition.

Frequent micturition, loss of flesh, convulsions, phosphatic calculus, hernia, nervous exhaustion, dyspepsia, diarrhœa, prolapse of rectum, balanitis, acute phymosis, and masturbation are all conditions induced by the constricted long prepuce, and all to be rapidly remedied by the simple operation of circumcision.

I have operated for every one of these conditions, and I cannot too forcibly impress on general practitioners the need for examination of a new-born infant. In some cases the condition is removed naturally as the child grows, and the penis, by growing, exerts a wedge-like pressure and cures the condition spontaneously, but in the majority of cases no such improvement occurs, and circumcision is the only cure. When it is done early, that is to say, when the child is a month or six weeks old, it is virtually well in a week.

Another advantage of the operation is that when at the age of adolescence; there is much less disposition for masturbation, as the irritation produced by malodorous smegma does not exist, which I think is one of the conditions predisposing to the practice of self-abuse among boys.

Then in adult life there is much less danger of contracting gonorrhœa and syphilis. Every city practitioner must notice the few Jews who come to be treated for these diseases as compared with the uncircumcised.

In operating, after making the parts as aseptic as possible, I draw back the skin of the penis with my right hand as far as I can, and then grip the foreskin between the forefinger and thumb of my left hand, pinching up about a third of an inch. I then transfix the foreskin immediately behind my finger and thumb, and cut upwards and then downwards, inclining the amputation downwards and forwards. By this, very little skin is taken away, and hardly any mucous membrane; I then pass a director under the mucous membrane, and separate it from the glans to which it is more or less adherent as a rule, and drawing back the skin again slit up the mucous membrane right up the corona, then peel off the mucous membrane from the glans with my thumb nails and reflect it. In very young children I simply then dress the part by anointing with carbolic oil, which relieves the smarting pain at once. In older children I put in three sutures of catgut or fine silk, one at each end of the mucous membrane flap to the skin on each side, and one underneath, and these are sufficient; and as a dressing carbolic oil 1 in 30, which I find is the best dressing. The evil results of neglected foreskins are so numerous and serious that I am constrained to write suggesting more frequent circumcision.

A SAFE METHOD OF DEALING WITH CASES OF INTESTINAL OBSTRUCTION.

By H. CRITCHLEY HINDER, M.B., CH.M., HON. SURGEON PRINCE ALFRED HOSPITAL, LECTURER IN SURGERY UNIVERSITY OF SYDNEY.

INTESTINAL obstruction is, without doubt, one of the most dangerous conditions requiring surgical treatment and any method which will show any likelihood of lessening the mortality must be more than welcome. There are two or three features in connection with this condition which it would be worth while to emphasise.

The patient is usually much distended and poisoned from absorption of his own intestinal contents. Under these circumstances a search for the seat of obstruction will often be followed by death, because unless the obstruction be very low down indeed the paresis following interference with the intestines will keep up just so long as will suffice to kill the patient and before the intestinal canal has recovered sufficiently to get rid of its load of toxins. It is very evident, then, that one's duty is to save the patient from dying by emptying his intestines and to deal with the obstruction later on.

The method I am about to speak of may not be a new one it is, nevertheless, a good one and involves the minimum amount of handling of the bowel.

I have noticed that if an opening be made low down in the iliac, particularly the right iliac region, or in the supra pubic region, the first piece of distended bowel which presents is usually a piece of the ileum sufficiently low down to answer all the purposes required. Take then this piece of distended bowel hold it in the centre with a pair of artery forceps and stitch it to the parietal peritoneum with fine catgut and a curved, round needle, so as to leave an area three-quarters of an inch by half an inch exposed. In order to be sure that the gut is well held, it is safer to apply a pair of forceps on each side of the centre one and then to take off the first forceps. Tuck a narrow strip of gauze round the sides of the wound so as to fairly well isolate the intestinal patch. Plunge a knife into the centre between the forceps and quickly insert a large catheter or a rubber tube for two or three inches. The tube fits the hole tightly just long enough to allow the exposed area to be shut off and as soon as it fails to act, say in three or four days, it may be taken out, the two retaining forceps removed, and the skin protected from the irritating discharge by a plentiful smearing of vaseline or boracic ointment. The further treatment depends on the further treatment of the cause of obstruction.

My first case, a patient of Dr. Jones, was one of recurrent appendicitis and a gradually increasing obstruction due, I discovered when operating, to a narrowing of the gut from surrounding inflammatory trouble. The appendix was attached to and had ruptured into the lower part of the ileum so that when it was removed the tip of the finger could be slipped into the strictured bowel. A drainage tube and gauze directed the fæcal current in the right direction and a fæcal fistula resulted. As soon as the fistula closed the abdomen became distended nor could enemata or aperients be of any avail and things looked desperate. Inasmuch as the appendix was originally removed from the front of the sacrum there was little chance of re-opening the tortuous canal leading to it. Another fistula was made in the left suprapubic region in the manner described and later on an ileo colic anastomosis put the patient on the right road to recovery. The other day, two years after operation, I met this man. He has had no trouble whatever since and his bowels act regularly and normally.

In the second case I was assisted by Dr. Blackwood and Dr. Purser. The patient had apparently suffered from repeated attacks of appendicitis which he attributed to biliousness. He was operated on two hours after he was first seen but his appendix had already ruptured and fæcal extravasion was present. This necessitated free drainage with gauze and tube. Within four days the absolute failure of enemata and aperients to act in any way and the increasing vomiting and sleeplessness and general distress of the patient made it very evident that there was inflammatory kinking at the site of the wound. A fæcal fistula was established and in this case I did what I should always recommend to be done under similar circumstances. Two ounces of epsom salts were injected into the bowel through the catheter and the outer end of the catheter was nipped for about twenty minutes. When the catheter was released a copious result of about a pint of thin fæces was obtained from the tube and it continued to run into a bottle placed by the side of the patient for some considerable time. The relief was marked and the distention soon subsided. Next day the bowels acted after enema and no further anxiety was caused. In four weeks the fistula had closed and now, nine months after operation, the patient is well and experiences neither colic nor constipation.

The third case, a patient of Dr. Mills, occurred after operation for ruptured appendix in a boy of fourteen. About the third or fourth day his condition was critical with a soft pulse of 130 and manifest obstruction. A fæcal fistula was established with a little difficulty because I had to tear a hole through a fat omentum in order to get at the bowel The lad remained cold and collapsed with a pulse of 150 for about eight hours. Five hours after operation and injection of salts his bowels acted freely by tube and per anum. His symptoms rapidly subsided; within four weeks his fistula had practically closed.

In the last two cases the kinking of the bowels and subsequent sticking together with lymph were sufficient to do all the damage, but relief of distention and a brisk stimulus from above were sufficient to relieve the bowel and at the same time no doubt rapidly diminished the effusion at the site of the wound, and promoted absorption of the excess of lymph present.

No doubt if it were possible at times to get these patients to retain big doses of aperients considerable trouble would be saved. In the last two cases quoted the efficacy of the salts was very evident. The best of this method, too, is, that the attachment of the very distended bowel makes the area smaller still when the bowel returns to the normal size, and thus leaves very little chance of future obstruction at the site of the fistula owing to the adhesion to the abdominal wall.

PROCEEDINGS OF BRANCHES.

VICTORIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

The monthly meeting of the Victorian Branch of the British Medical Association was held at the Austral Salon on Wednesday evening, May 22nd. Dr. Nield (the President) was in the chair.

The minutes of the last meeting were passed.

Dr. A. Woods wrote *re* the holding of a meeting of medical practitioners to discuss the registration of nurses. This was agreed to cordially by the meeting, and the opinion expressed that some satisfactory solution of the question ought to be finally settled.

The report on the proposed alteration in the constitution of the British Medical Association was brought before the meeting, and the motion of Dr. **Cuscaden**, seconded by Dr. **Bryant**, "that the conclusion arrived at by the Council be agreed to," was passed.

The printed circular issued by the Duke of York and Cornwall to the members of the Victorian Branch of the British Medical Association was received.

Dr. **Bryant** then read "Notes of Two Cases of Abdominal Surgery."

NOTES ON TWO CASES OF ABDOMINAL SURGERY.

By H. W. Bryant, L.F.P.S., L. et L. Mid. R.C.P. Edin., Williamstown, Vic.

Mrs. G——, *æt.* 49, multipara. Had been ailing since her last confinement, a period of thirteen years. Before this confinement she was suffering from hydramnios, and the membrane had to be ruptured before the os was properly dilated, in order to relieve the over-distention of the uterus and to allow the head to engage in the pelvic brim. After confinement, she suffered from a heavy uterus, which did not contract properly and became badly retroverted, The result of this was severe pain every menstrual period, and the flow was often delayed. Pessaries were used of various forms, but they would not keep in position long, owing to the weight of the uterus, and if they kept in position for any time they caused so much pain and interfered with the action of the bowels so greatly, that they could not be tolerated. Operation was suggested as the only and proper method of relieving this condition, but the patient, who was a very timid woman, would not hear of it. So matters went on for some years, until during a menstrual period a sharp attack of cellulitis occurred on the left side of the uterus in the structures about the left broad ligament. The acuteness of this attack was combatted by the ordinary means, and after it had subsided, it left behind a thickening extending up the left Fallopian tube to the left ovary, which was enlarged, hard, and painful on pressure. This attack occurred about fifteen months back, and from that time the patient had been practically a confirmed invalid and had been confined to her bed or couch all the time. It was explained that an operation would give her every chance of regaining her health, but she preferred to wait and rest, and the usual local treatment of douching and ichthyol plugs was prescribed, with the result that the parts remained about the same for some months. Latterly, the ovary began to enlarge and caused a good deal of pain, and the difficulty with the bowels became greater. As matters were becoming very urgent, the patient at last consented to the operation.

On the 18th December, 1900, after curetting I removed a cystic tumour, which dipped down behind the left broad ligament, and was attached by a pedicle of fully four inches. The tumour had not rotated upon its stem, but was bent round like a retroverted uterus, and was pressing directly upon the rectum just below the sigmoid flexure. The tumour was bound down by many thick adhesions, and, owing to the depth of the pelvis and the shortness of the pedicle, and the thin condition of various parts of the tumour, it made the case more difficult than usual. The vessels were separately tied, and the mucous membrane approximated over the stump with thin catgut sutures. Owing to the amount of manipulation required to remove the tumour, the pelvis was flushed out with saline solution, some of which was left in, and the operation was concluded in the usual manner, no drainage being used.

On the evening of the second day after operation, the temperature rose to 102·8°, but, on getting the bowels well open with hyd. subchlor. and mag. sulph., the temperature gradually came down.

The stitches were removed on the tenth day. The wound healed by first intention, and the patient is now very well.

The anæsthetics used were first chloroform and then ether, but the latter most of the time. The patient had rather a bad bronchial catarrh after the ether. This was the first time I have noticed such a result out of a great number of ether cases.

Dr. Mollison reported that the tumour, which was about the size of a large orange, was a dermoid of the ovary, and in several places was very thin, and might have burst at any time.

Mrs. C——, *æt.* 25, stated that from the very first time, menstruation had been painful; and this pain increased in severity until her parents consulted an up country practitioner Pain was always felt in the left flank, and was always so severe as to incapacitate the patient from doing anything during its onset. This went on for some years until the patient was married, and then it was discovered that intercourse always caused pain in the left side. About two years after her marriage, she was confined of a female child, after a very hard labour, and with the help of instruments and chloroform.

She made a good recovery until allowed up on the 14th day, when she found the pain in the left flank was still present.

On examination, per vaginam, there was retroversion as well as prolapse of the uterus, and a distinct thickening in the left Fallopian tube leading up to the ovary, but no well defined swelling could then be made out. The patient was made to rest in the recumbent position as much as possible, and warm douching twice a day, with 1 in 5,000 of sol. hydrarg. perch. and ichthyol plugs afterwards were ordered and the bowels regulated with saline aperients, when necessary. Under this treatment, the patient was able to get about after a time, but could do very little without pain in the side Pessaries were tried but could not be tolerated, and an operation was suggested to fix the uterus and to examine the left ovary and tube which could be removed if deemed necessary. This advice was rejected then, and the patient remained for nearly two years a chronic invalid.

In January, 1900, after some slight exertion and just about the menstrual period, a sharp attack of cellulitis occurred in the structures about the left broad ligament. Under treatment this subsided, but it showed the patient the danger of waiting longer for nature to cure her, so she consented to an operation.

On the 15th March, after first curetting the uterus, the patient was placed in the Trendelenberg position, and a small tumour about the size of a hen's egg and attached to the inner part of the left Fallopian tube, together with the left Fallopian tube and ovary were removed. There were a good many adhesions, but they were separated carefully with very little hæmorrhage. The uterus was then stitched to the peritoneal surface of the abdomen with three stout silk sutures, and the wound closed in the usual way. The whole operation did not occupy more than three quarters of an hour, and the anæsthetic administered was ether, which answered admirably, and there was no vomiting after the operation. The temperature on the night of the operation was 99° F., and after this it remained normal all the time. This patient now enjoys the most perfect health and activity.

Dr. Mollison reported that the parts removed consisted of a blood cyst about the size of a hen's egg, and a Fallopian tube very much destroyed by inflammation and blocked in several places, with small cysts growing from it in corresponding parts. The ovary was in a state of cystic degeneration.

Dr. NIELD had seen operations of the kind related by Dr. Bryant done in the Women's Hospital, but he was pleased to find they could be done so successfully at the present time outside of the Hospital.

Dr. RAMSAY objected to the term cellulitis as not definite enough, and limited the diagnosis as well as the cause of the disease.

Dr. CUSCADEN considered the cases most interesting and instructive. The patients were not only chronic invalids, but in great danger, and the result of the operations had restored them to good health, and he complimented Dr. Bryant on his success.

Dr. WILLIS was pleased with the results in these cases, and would like to know what Dr. Bryant did with the uterus in the first case.

Dr. VANCE asked if Dr. Bryant ever got any trouble after the continuous use of ichthyol, as he had occasionally found cases in which ichthyol could not be tolerated.

Dr. BRYANT, in replying, stated that both cases had been operated upon at the patients' own homes under very strict aseptic precautions. With regard to Dr. Ramsay's objection to the term cellulitis, it seemed to Dr. Bryant the most useful term to use, as it conveyed the idea of a localised inflammation into the cellular tissues surrounding the part where the mischief was, and this could be felt within twenty-four hours per vaginam as a hardened mass of exudation, but it would be quite impossible to diagnose in that stage the exact cause of the attack. When this exudation gradually became absorbed, as it does so often under proper treatment, the condition of the tube and ovary might be then made out. In reply to Dr. Willis, the reason he did not stitch the first retroverted uterus up was that the patient had passed the menopause and the uterus was rapidly diminishing in size, and the examination had shown that on removal of the tumour there was very little pressure upon the rectum. With regard to the use of ichthyol, he had found it "the" most useful local application for any form of inflammation of the uterus and its appendages, and also of the vagina. There had been a few cases where it could not be borne, but he had never seen any bad symptoms from its use.

NOTES ON CHLOROFORM ANÆSTHESIA

By W. B. Vance, M.B., Etc., Melbourne.

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In bringing these few rough notes under your notice, I cannot hope to mention anything new, but hope to, perhaps, give food for reflection and discussion.

To my mind the most satisfactory anæsthetic is chloroform, the great objections being the higher death rate and post anæsthetical vomiting, which in certain cases is very intractable and distressing to our patient. With care the death rate should be much lower than it is. It is my strong opinion that the administration of chloroform should be made a specialist's work, and that no student should be allowed to qualify till he has had a good practical knowledge of the administration of all the anæsthetics in common use.

There are many different brands of chloroform in the market. It is advisable to adopt one make and stick to that always. As a rule, before the administration of anæsthetics, the patient is kept far too long without food. In the case of infants and the feeble a great deal of harm is frequently done, for not only is their vital activity lowered, but they get into a nervous, hysterical condition from want of food. Light, nourishing diet can be given in small quantities with perfect safety up to two hours to two and a-half hours before the operation. Brandy is frequently given just before the operation; I doubt if it does much good, however. Strychnine hypodermically is, however, decidedly useful.

Too much stress cannot be laid on the fact that we should do all in our power to win the confidence of our patient. Nothing does this more than the gradual administration of the anæsthetic. Chloroform, well-diluted, has a decidedly pleasant and soothing effect, and, as a consequence, our patient becomes more settled.

By far the most satisfactory method of inducing anæsthesia is by the common mask. Many mechanical appliances have been invented which, although very ingenious, are in practice by no means satisfactory.

The amount of chloroform necessary to produce anæsthesia varies, not only with each individual patient, but also with the method of administration, time taken to bring it about, the temperature, and the reading of the wet and dry bulb thermometer. Time should be taken to bring about the anæsthesia, hurry is absolutely dangerous, chloroform having a marked accumulative action.

It is advisable during struggling to lift the mask off the face, to give the patient some fresh air. Patients in this state are apt to breathe deeply for a minute or so, and an overdose is easily brought about. Should shallow breathing come on during the continuance of the anæsthesia, a little ether sprinkled on the mask will frequently stimulate the respiratory centre. Should it still persist, change the anæsthetic—preferably ether should be given.

A good guide to the condition of the circulation can be obtained from watching the colour of the lips. A flagging circulation is early indicated by them. Patients, while on the operating table, die from one of three causes:—(1) anæsthesia; (2) operation; (3) some accident. If death is due to the anæsthetic, it is due to an overdose, and this, in a very large proportion of cases I believe, can and should be guarded against. The pupils give the first indication of danger. They dilate from one of two causes:—(1) Operating during incomplete anæsthesia; (2) The patient is getting an overdose. They dilate before respiration or the pulse give any indication of threatening trouble. Immediately I notice them commencing to dilate I remove the mask and let the patient have plenty of fresh air. So far, no satisfactory remedy for post anæsthesia vomiting has been discovered. In the few cases I have been enabled to give oxygen with chloroform, I have been greatly pleased, not only with the way in which the patient took it, but the vomiting was either nil or else very slight.

The degree of anæsthesia in which we should leave our patients is a fruitful source of discussion. My practice is as follows:—

Dental operations.—Slight corneal reflex, post nasal, just enough to keep the patient quiet.

Lung operations.—Slight corneal reflex, dilatation of cervix and urethra complete.

All abdominal operations complete.

Brain operations and operations on tongue and jaw.—Slight corneal reflex.

Dr. Ramsay agreed with Dr. Vance with regard to the danger in dental cases and he always liked to have slight corneal reflex in such cases and preferred that the patient should retain the ability to swallow. He had experienced some nasty cases through keeping patients too deeply under in dental cases.

Dr. Cuscaden had been giving chloroform twenty years and preferred it to any other anæsthetic and had never had any great trouble with it. He regarded the tip *re* dilation of the pupil as a most valuable one, and he considered that in almost all cases of death, it was due to an overdose, and he remarked that the patient should be watched most carefully and no talking allowed to the administrator. He quite agreed with Dr. Ramsay about dentistry operations and post nasal growths.

Dr. Dyring thought that the mental condition of the patient had not been considered sufficiently and he considered that this was a great factor in whether the patient went under the influence of the anæsthetic quietly or the reverse. He did not care for ether in dental cases and he drew attention to the fact that in dilation of the cervix uteri by Hegars there was a point between Nos. 10 and 11 at which a great deal of difficulty in introducing the dilator unless the patient was thoroughly anæsthetized.

Dr. **WILLIS** said there was so much to say in reference to this subject that it was hard to know how to begin. He thought Dr. Vance's paper a good practical one, and he preferred chloroform but thought ether much safer. He was not so sure that when death commences in these head cases, that there might not be a condition of cerebral anæmia at the start; and he thought that overdosing might be the cause of death, but often there was an idiosyncracy connected with it, *i.e.*, there might be a fatty heart, and if so it would require only a very small quantity to cause an overdose. With post nasals he never had any trouble with blood so long as the head was kept well over. He considered dental cases the most dangerous of all.

Dr. **BRYANT** preferred ether to chloroform in most cases, and considered that if men would take more trouble to get used to its administration it would be a good thing. He considered alcoholics were very dangerous cases for any form of anæsthetic.

Dr. **NEILD** was greatly interested in this paper, and instead of making any remarks he would like to give a short paper to the members on his experiences of anæsthesia since 1846.

Dr. **VANCE** replied that he preferred chloroform and oxygen to any form of anæsthesia, and he considered that he got less vomiting after this than anything else he used, and it was a great pity that oxygen was so expensive. Ether, he thought, was the lazy man's anæsthetic. He used a great deal of ether in his practice, but generally in conjunction with chloroform. He again expressed regret that he had not had more time, as he had intended to give notes on all the anæsthetics.

SOUTH AUSTRALIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

THE monthly meeting was held at the University on 30th May, 1901, at 8 p.m. Present:—Drs. Brummitt (President), Symons, Scott, Bonnin, Cudmore, Smeaton, H. Evans, Cooper, Anstey Giles, Gault. J. C. Verco, A. A. Hamilton, Cleland, Corbin, J. A. G. Hamilton, Marten, W. A. Verco, W. Hayward, Lendon, J. Evans, Swift, Todd, Poulton, Morgan, Gregerson, and Gunson (hon. secretary).

EXHIBITS.

Dr. J. A. G. **HAMILTON** showed a par-ovarian cyst removed from a young unmarried woman. It was the largest par-ovarian cyst he had met with. It filled the whole abdomen from pelvis to diaphragm, pressing up the latter. It sprung from the right ovary, and contained 15 pints of clear fluid. There were no adhesions, but the right tube was spread out over the cyst wall, so it was impossible to enucleate the cyst. Right ovary and tube had to be removed. The patient was up on the fourteenth day, and left the private hospital on the twenty-first day.

For Dr. Way. A large cystoma (see p. 238).

Skiagraphs taken at the Adelaide Children's Hospital by Drs. Gunson and Cooper were exhibited.

Minutes of previous meeting were read and confirmed.

BALLOT.

Wm. Robertson, M.B., Ch.B. Melb., was elected a member of the Branch.

PAPER.

A discussion on "Injuries at and near the Elbow Joint" was opened by Dr. SWIFT. A long discussion followed, in which most members took part.

INJURIES AT AND NEAR THE ELBOW-JOINT.

BY H. SWIFT, M.D. CANTAB., ADELAIDE, S.A.

I FEEL, gentlemen, that an apology is due by me to you, for undertaking to open a discussion on the subject as worded in our notice papers. I do not feel equal to it. Through a slight misunderstanding I have been deputed to undertake a task that is beyond my capabilities. I agreed to read a paper on "Fractures of the lower end of the humerus," of these I have been called upon to treat a large number; of pure dislocations of the elbow-joint I have had absolutely no experience; so that I will only enumerate the different kinds of injuries that may occur at or near the elbow-joint, and will then confine my remarks to fractures involving the lower end of the humerus, and will leave the dislocations to some member whose experience has not been so limited as mine.

The fractures that occur in the region of the elbow joint are:—(1) fracture of the humerus first above the epiphysis; (2) separation of the lower epiphysis; (3) fracture of the projecting point of the internal condyle; (4) the T shaped fracture, which is the separation of each condyle from the shaft and from one another; (5) separation of either condyle. The first three are external to the joint, the latter two involve the synovial membrane. (6) Fracture of the olecranon; (7) fracture of the coronoid process of the ulna—which is said to be one of the rarest accidents in surgery; (8) fracture of the neck of the radius.

The dislocations that are said to occur are:—(1) the dislocation of both bones backwards, with or without fracture of the coronoid process, which is one of the commonest form; (2) dislocation forwards, which is said to be extremely rare; (3) lateral displacement to either side; then there are reported instances of dislocation of the ulna alone backwards, dislocation of the ulna backwards and the radius forwards, and the dislocation of the radius and ulna complicated with the fracture of the olecranon coronoid process, either of the condyle or of the head of the radius; (4) dislocation of the head of the radius, which may be forwards, backwards, or outwards, the first position being the most common. Certain nerves may be injured at or near the elbow-joint viz—the musculo-spiral, the posterior interosseous, and the ulnar.

Of all injuries at or near elbow-joint separation of the lower epiphysis of the humerus is the commonest. It is one of the most frequent fractures we meet with in any part of the body. It is at the same time one of the most difficult to treat, and the results are in a great number of cases far from what either the medical man or the patient desire, in fact, Mr. Hulke says that this injury is almost always followed by some permanent impairment in the movements of the elbow. The transverse and T shaped fractures are generally produced by falling on the palms with the elbows a little flexed; fracture of either condyle may be caused by blows or falls on the elbow. The reason why the fracture is so frequently comminuted is probably to be attributed to the shape of the articular surface of the lower end of the humerus, and to the way in which it is developed. The articular surface is flattened and thinned out in an anteroposterior view, being made up of four parts each of which has a distinct centre of development, these are the external condyle, the capitellum or radial head, the trochlea, and the internal condyle. In the T shaped fracture we find the external condyle with the radial head is separated from the shaft and from the trochlea and internal condyle, which latter is also separated from the shaft, part of the thinned out ridge of the shaft, which is above the actual epiphysial line, is also attached to each condyle, the muscular attachments being probably less unyielding than the bony structure.

The diagnosis is never easy. There is always a considerable amount of swelling which sets in within a very few minutes from blood extravasation and increased amount of synovial fluid. There is also a good deal of pain during manipulation which, from the displacement and swelling, is apt to be prolonged. For these reasons, an anæsthetic should be administered at once, a very careful examination made, the bony prominences made out and compared with the opposite side, the mobility of the condyles, or otherwise determined, accurate measurements from the acromion compared with that on the sound limb, the diagnosis made, the deformity reduced, if possible, and the limb put up in as good a position as can be obtained. Occasionally cases occur, where, although the T shaped fracture is complete and can be perfectly defined, the deformity is not very marked, or, if it is, can easily be reduced, and the forearm can be readily flexed beyond a right angle, and after reduction the fragments will remain in good position, when the arm is placed on a rectangular splint. In others, although the fragments have been apparently returned to their normal position, when the forearm is flexed, it is locked at a right angle. This obstruction to complete flexion is caused by the lower end of the humerus riding forwards and impinging on the head of the radius or the coronoid process. The best result is obtained by putting the limb up straight in side splints, and by getting some extension on the fragments, it can be kept in good position. Not only can extension be more perfectly applied in this position, than when the forearm is flexed, but also the condyles are less likely to be rotated by one set of muscles overpowering the other. The boy you have seen this evening, had a T shaped fracture of his left humerus seven years ago. His arm was put up in this way with, I think you will agree, a perfect result; even by the aid of the Rontgen Rays, no abnormality can be detected. About two years after, he had a similar fracture of the right arm, which was treated in the same way, and at the time, I confidently expected I was going to get as good a result. Unfortunately, a few weeks after the accident, he again fell and partially broke down the union. I was unable to reduce the deformity owing, I think, to the thickening at the end of the shaft, and also to the incompleteness of the fracture. Under the X rays, you can see the thickening at the end of the shaft, and the external condyle is united at a slight angle.

I have said "the deformity should be reduced if possible." Every now and then we meet with a case when try as we will we cannot reduce the deformity (I am speaking of recent fractures). I have such a case in the Children's Hospital at the present time.

I saw him within an hour of his fall over a box on to his palm. Under ether a T shaped fracture was defined with the lower end of the upper fragment in front of the joint towards its radial aspect, and apparently imbedded in the deeper layers of the skin, being, in fact, almost through. Try as I would I could not reduce this displacement. On two other occasions at intervals of a few days I likewise failed. On the last occasion I meant to cut down, and, if I failed to reduce the deformity, remove a piece of the shaft, but when I found that I could flex the forearm to a right angle, it occurred to me that I could not hope for much more, even if I operated, so I decided against subjecting him to the risk of an open wound. After another fortnight the arm was taken down and we found that he had complete wrist drop, he could not extend his wrist or his fingers, nor could he supinate his forearm. Under ether I made an incision along the outer border of the biceps and searched for the musculo-spiral nerve between the brachialis anticus and the supinator longus, and after a little trouble found and traced it down to the projecting edge of the broken shaft which had been thrust through the brachialis anticus. The nerve here was flattened and tightly bound down to the bone. I managed with some difficulty to free the nerve. I then separated the periosteum and removed about two-thirds of an inch of the shaft, scraped away some new tissue over the condyle, and wired the lower end of the shaft to the outer condyle.

For ten days he was quite comfortable, but on the 11th there was a little rise of temperature and the wound was inflamed. On the 12th I removed two stitches as some pus was escaping and ordered some foments with decided improvement next day.

It was very evident, from the operation, that the lower end of the shaft had been driven through the brachialis anticus, and that the fibres of this muscle, and perhaps of the anterior ligament as well, prevented its reduction. Under these conditions the proper line of treatment would be to cut down at once, and free the lower end of shaft or remove it, and I should be inclined to cut down in the position I chose in the case just related, and isolate the musculo-spiral nerve in the first steps of the operation. If the shaft could be reduced without any removal of bone, an attempt might be made to drill a hole through the three fragments and put in a bone or ivory peg. If this effort failed, and the fragments appeared to remain in good position when the joints were flexed, nothing further need be attempted; but if a piece of bone had been removed it is essential to wire it to at least one of the condyles for fear of getting an ununited fracture by leaving a wide space between the movable fragments.

But when the deformity has existed for some weeks, what treatment should be adopted? At the Children's Hospital there have been a good many of such cases. Each case must be judged on its own merits. If there is a fair amount of flexion and extension, or if the forearm can be flexed to a right angle, or even if the forearm is fixed at a right angle, I am inclined to advise that no operative attempt at a reduction of the deformity should be attempted, for we cannot expect to improve the condition very much, and we may make it much worse. But when the limb is fixed in a straight or oblique position, and cannot be flexed to a right angle so that the hand cannot be approximated to the mouth, or if there is evidence of any implication of the musculo-spiral or ulnar nerves, then operative interference is called for, some authorities going so far as to advise complete excision of the joint. Probably the injuries that are most difficult to treat are the multiple ones, where there is a fracture, and at the same time dislocation or rotation of the condyles; when some weeks have existed since the accident, and the fragments have become bound together in their new position, an operation is a very formidable business.

In the after treatment of these cases it is of the utmost importance, if a movable joint is desired, to begin movements early. Sir A. Cooper advised that passive motion should be commenced at the expiration of three weeks after the accident in a child, and at a month in the adult. Others advise that it should be commenced at a much earlier date, even within the first few days. My own practice is to keep the limb at rest for the first fourteen days and then to grasp firmly the lower end of the humerus and flex and extend the forearm, if possible, a few times; put the limb up again for a few more days, and then leave off the splints and use gentle movements daily.

Since writing the above I have been treating another boy who was admitted under me a fortnight ago, who had hurt his elbow 14 days before admission. A very good photograph shows the position, viz., dislocation of the forearm, with a fracture through the epiphysial line, the fracture being partly united in a faulty position. I tried under ether to reduce the dislocation and thought I had succeeded, but could not flex the elbow beyond a right angle. The arm was put up in plaster of Paris. Upon taking the arm down on Tuesday I found that the dislocation had only been partly reduced, so I again attempted the reduction under ether on Wednesday and although I used all the extension and force I could, I was not satisfied that the dislocation was reduced.

In conclusion, I might perhaps direct the members' attention to some points that are worthy of discussion. These are:—

(1.) The cause of the injuries.

(2.) The reason for the various displacements.

(3.) The assertion that obstruction to complete flexion is caused by the lower end of the shaft impinging on the head of the radius or the coronoid process.

(4.) The difficulty in reducing the deformity is due to the shaft being driven through the brachialis anticus and the anterior ligament.

(5.) The best methods of treatment, especial attention being drawn to the straight position for a time, with early movement.

(6.) When is operative procedure necessary?

(7.) If it is decided upon, what is the best incision?

(8.) The assertion that a lateral incision between the biceps and the supinator longus with isolation of the musculo-spiral nerve is to be preferred to the incision along the posterior aspect through the tendon and lower part of the triceps.

I am indebted to Drs. Gunson and Cooper for their excellent photographs.

DISCUSSION ON DR. SWIFT'S PAPER.

Dr. **Anstey Giles** said he had listened with interest to what Dr. Swift had said on the subject of injuries about the elbow joint, and his remarks had recalled to his (Dr. Giles') memory many such cases in his own practice, some ending happily enough, others being attended by consequences the reverse of satisfactory. The first case that presented itself to his mind came under his observation a little over twelve months ago. A boy, about 9 years of age, fell and injured his right elbow, and was for three months under the care of a very careful and capable country practitioner. At the end of that period, in spite of every attention, the arm was flexed to a degree somewhat greater than a right angle, a considerable enlargement could be felt on the external aspect of the joint producing deformity, the joint was quite stiff, and any attempt at forcible manipulation could not be tolerated. He could distinctly feel a large portion of bone partially detached and lying obliquely across the joint, which doubtless in some measure contributed to the limitation of movement. This he removed, and it proved to be the external condyle of the humerus, the lesser head and a portion of the trochlea. (It may interest you to see the specimen, which I have with me.) He exercised a considerable degree of force to break down many dense adhesions, but his efforts did not result in much movement at the joint. The wound healed by primary union, and at as early a date as possible passive movements were resorted to. The ultimate result was all that could be wished, and now the boy had perfect movement at the elbow joint and his right arm was as strong and useful as ever. He might briefly allude to a second case, contrasting most unfavourably with the one just narrated, which he had to treat in the early days of his practice. A boy, about 8 years of age, was brought to him suffering from what he took to be separation of the lower epiphysis of the humerus, resulting from a fall. He did not have the advantage of an anæsthetic, but rectified the displacement as well as he could and put the arm up on an angular splint. The progress was never satisfactory, for after the swelling had subsided there was still deformity which he failed to remedy, and in spite of all his efforts a considerable degree of anchylosis persisted. The parents lost confidence in him, the child was transferred to another surgeon who deemed an operation necessary, and the joint was excised. Needless to add, his reputation suffered considerably. Dr. Gault had just reminded him of a similar case they saw together some two years ago. A youth, about three months after having sustained an oblique fracture to the lower end of the humerus involving the joint, presented himself with the arm practically of little use. It was flexed at about a right angle, and hardly any movement could be obtained at the elbow joint, even when the patient was placed under an anæsthetic. By long-continued and patient manipulation, however, a very gradual improvement took place, and now, although the movements were anything but perfect, he gains a livelihood as a gardener, and had a strong, useful limb. This case goes to show the importance of perseverance with passive movements for a considerable period—many months—before attempting any operative interference, as what may appear to be a hopelessly anchylosed joint often gradually improves, and a fair result is ultimately obtained.

Dr. A. A. **Hamilton** said the following were brief notes of three cases of injuries to the elbow which occurred lately in his practice, and were all instances of a similar condition, viz., separation of one or other of the epicondyles:—(1.) W. B., *æt.* 6 years, was brought to him on the 23rd November, 1900. He had fallen when running the previous day, and had injured his left elbow. The joint was much swollen, and there was some ecchymosis over the external condyle. Pronation and supination were perfect, but the arm could not be extended to its full extent. A rectangular metal trough splint was applied. On the 27th November an examination under the X rays revealed a separation of a small fragment, no doubt the epiphysis, of the external epicondyle. The splint was occasionally removed for passive movements, and finally taken off on the 8th December, when the joint was practically perfect. (2.) J. A., *æt.* about 12 years, was seen on the 12th December, 1900, a few minutes after a fall in a gymnasium, suffering from an injury to the elbow. Dr. Gunson kindly administered ether for him, and they found a dislocation backwards of the left radius and ulna with a fracture, or probably a separation of the epiphysis, of the internal epicondyle. A rectangular wooden splint was applied, which was finally removed on the 18th December. The movements of the joint were perfect, except that the arm could not be quite fully extended. Shortly afterwards the arm was fully extended under an anæsthetic, in compliance with the wishes of the parents. There was no evidence of direct injury in this case, and probably the separation was due to muscular action, which is said to be the usual cause of this condition in the case of the internal epicondyle. (3.) A. L., *æt.* 3 years, fell while running along the footpath on the 31st March, 1901, and was seen by him on the same afternoon. He found that the external epicondyle of the left humerus was freely movable, with soft crepitus. Considerable swelling and ecchymosis ensued, and the arm was put on a light rectangular splint. On the 1st April Dr. Gunson kindly examined the arm under the X rays at the Children's Hospital. They could not obtain a very satisfactory view, but satisfied themselves that the shafts of the long bones were uninjured. The separated epicondyle was invisible, being no doubt insufficiently ossified to be opaque to the rays. The splint was removed finally on the 15th April, when the movements of the joint were perfect. It is interesting to note that Frank H. Hamilton, in speaking of fracture of the external epicondyle, says,—"I have only mentioned this supposed fracture, of which some writers have spoken as a fact, in order that I may declare my conviction that it never has been made out."

Dr. **Swift**, in reply, agreed with Drs. Hayward, Hamilton, and Giles, that these cases have great recuperative power, and that many of the most unpromising cases eventually recover a good deal of movement, and have very useful joints. Unfortunately, there are many that have anchylosed joints in a more or less faulty position. From the consensus of opinion passed this evening, Dr. Swift thought he must have been very unfortunate in the cases he has met with in having so many fractures and so few dislocations, for, judging by the remarks of members, the dislocations have given rise to very little trouble, whereas, the reverse has been the case in fractures. He still thought that pure dislocation was not very common, and thought that if these cases of dislocation had been exposed to the light of the X rays, a fracture of the coronoid process or through the epiphyses of the humerus would have been discovered, as well, although, even with the aid of the X-rays a fracture might be overlooked, as callus, unless ossified, throws very little shadow. The case he shewed this evening was at first thought to be a pure dislocation, but under the X-rays there was seen to be a fracture as well, which diagnosis was confirmed under ether. Dr. Marten's own case is another instance. He agreed with Dr. Hayward that in some cases movements of the joint appeared to do no good, rather appeared to render the joint more stiff, and if left alone a fair amount of movement was recovered later on when the callus had been absorbed, but on the other hand the majority of cases were much improved by early and free movements. The first case he shewed this evening, was an example of early and free movement, and one of the causes of the excellent result he had attributed to the intelligent treatment carried out by the father of the boy in persisting in moving the joint. He agreed with Drs. Marten and Hamilton in the necessity of warning the parents and friends of the probability of impairment of movement being the result of these fractures into the joint. It was his invariable custom. Dr. Hamilton appeared to misunderstand Dr. Swift when he advised him to put the arm up in fully flexed position, and said he would get better results. Dr. Swift said that if the fragments appeared to remain in a good position in the flexed position, then he advised the arms to be put up in this position, as it was more comfortable than the straight position; but, if, as often happened, there was riding forward of the lower end of the shaft when the limb was flexed, so that the forearm could not be flexed beyond a right angle, then he advised the limb to be up in a straight position — the forearm to be first firmly bandaged to the splints, then extension applied, and the splints bandaged to the arm. By this means a fair amount of extension could be kept up, and the riding of the humerus overcome. This was the only extension he had used. Dr. W. A. Verco advised that we should not be in a hurry to operate when there was apparently implication of the nerve supply, and quoted a case in which there was wrist drop and loss of supination after the splints were removed, which disappeared two days afterwards. Dr. Swift thought no one would operate unless the symptoms had persisted for a longer time than mentioned, and thought that the loss of power was probably due to pressure of the splints or the way in which the limb was put up. In his own case he thought there was no doubt that the paralysis was due to the musculo-spiral being flattened and bound tightly to the bone, and did not think that any power would have returned (as it had done) to the muscles affected unless relieved by operation. He thought Dr. Lendon, who kindly assisted at the operation, would bear him out in this statement. He thanked the members for the kindly manner in which they had received the paper.

NEW SOUTH WALES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

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THE regular monthly meeting of the Branch was held at the Royal Society's Room on Friday evening, 24th May, 1901, Dr. G. E. Rennie, vice-president, in the chair. There were also present:—Drs. Manning, Crago, W. K. Warren, Harriett Biffin, Isbister, Lucy Gullett, Gledden, Ludowici, A. L. Levy, McDonagh, Binney, Clubbe, Hankins, Megginson, Tidswell, V. W. Savage, R. McCredie, Cleland, Maitland, Traill, Mills, Sydney Jones, Bennet, Jamieson, Taylor Young, Corlette, Kirkland, Kater, Sinclair Gillies, Litchfield, Cope, Thomas, George Armstrong, Walker-Smith, Clark, Watson Harvey, Maclennan, McMurray, Ludlow, Mary Booth, Macdonald Gill, Chenhall, Gordon MacLeod.

Visitors:—Dr. Ellen Wood, Dr. Forster, Dr. Tilley (Queensland), Dr. Phipps.

The minutes of the previous meetings were read and confirmed.

Apology was received from the President (Dr. Foreman) for non-attendance.

The CHAIRMAN announced the election of the following members:—Drs. Romeo, Stevens, Busby, Agnes Bennett, C. V. Bowker, V. W. Savage, R. McCredie, Lucy Gullett, A. L. Kerr.

The following were nominated for membership:—Drs. R. C. Forster (Sydney Hospital), J. J. Kelly (Summer Hill), John Harris (Sydney), H. Throsby (Maclean), and Julia Carlisle Thomas (Sydney).

Mr. CLUBBE shewed a woman on whom he had performed, five years previously, at the Prince Alfred Hospital, an osteo-plastic resection of the foot, by the method of Mickulicz. The operation was done for necrosis of the os calcis (non-tubercular), with sinuses at the back and on each side of the heel. The woman was able to leave the Hospital ten weeks after the operation, and had been able to follow her occupation, that of a waitress, ever since. She used an ordinary boot, with no special support, and could walk very well, with hardly any limp.

Mr. HANKINS observed that the operation performed by Mr. Clubbe was so successful that it was beyond all criticism.

Dr. McDONAGH said this operation was designed by Wladimiroff in 1872, and independently described by Miculicz nine years later. In some of the text books it is described as Waldimiroff's operation, and rightly so, I think, as he was the first to design it. Dr. Fenger reports nineteen cases (*Journal of American Medical Association*, January 29th, 1887), thirteen of which were for tubercular caries—two died six to eight months after operation of general tuberculosis, twelve made a good recovery, five failed, necessitating subsequent amputation in three instances. The operation is indicated in extensive injuries of the heel, *e.g.*, gunshot wounds, or in cases of caries of the os calcis, and astragalus with disease of neighbouring joints, or in destructive ulceration of skin of heel or cicatricial contraction of foot with inconvenient deformity. Silver wire or kangaroo tendon have been used to secure the sawn surfaces of bone in apposition, but Mr. Clubbe used nothing, and still got a good result. In his case there is some mobility at the point of union which may indicate incomplete osseous union. The rather complex technique will, I think, prevent the operation from becoming generally adopted. It is on its trial, and has been subjected to much adverse criticism. Those supporting the operation lay too much stress on preserving every possible scrap of the foot. It is questionable whether the patient walks as well as if the entire foot had been removed and a good artificial limb provided. It is certainly contra-indicated if the integuments of the heel are sound, because it is inferior to Symes' amputation. Again recovery is slow, an important factor in private cases. Mr. Clubbe did not say how long his case took to heal. In some of the recorded cases the patient was unable to walk for seven, twelve, or fifteen months after operation, but on the other hand some could walk without any apparatus, as in Mr. Clubbe's case. Good powers of repair are essential for the success of the operation, which is not always to be expected in subjects of tubercular caries. The operation requires perfectly sound dorsal integuments, a condition well adapted for supra malleolar amputation, with a long anterior flap. There is usually some lengthening of the limb. Mr. Clubbe always brings before us interesting cases, and he is to be heartily congratulated on the marked success of his operation.

Dr. MILLS read a paper on "Appendicitis from the Point of View of a Physician." (See page 219).

Mr. CLUBBE was very pleased to find that Dr. Mills was on the side of the surgeon. Men talked about appendiceal colic, but when such cases came to be operated upon, although there might be no abnormal naked eye appearances, under the microscope the mucosa might be found to be ulcerated, and bacteria wandering in dangerous proximity to the peritoneum. Then, again, in cases of catarrhal appendicitis, which were looked upon by some men as very mild forms of the disease, when the appendix was removed, the surgeon frequently found concretions. And the microscope might reveal ulceration of the mucosa and submucosa, and hordes of all sorts of bacteria, that had actually captured the first line of defence, and were all ready to run riot at the slighest provocation, whilst so much uncertainty always existed as to what was going on. In fact, until physicians could say that certain clinical symptoms invariably indicated certain pathological conditions (which they were very far from being able to do now), given ideal surroundings and a competent surgeon, it would be wise to operate directly appendicitis was diagnosed. As a matter of fact, the ideal surroundings and the competent surgeon very frequently cannot be obtained; therefore, in the large majority of cases, the patient must wait till the acute attack is over. He should then be advised to make such arrangements that will enable him to get his appendix removed with comparative safety.

Dr. THOMAS said he would not have risen in reference to Dr. Mills' paper had not the latter referred to Mr. Treves' advice with regard to treatment. As an old pupil of Mr. Treves, he would point out that six or eight years ago, Mr. Treves in his "Surgery," advocated the use of morphia—an advice which was then universally followed. Was Dr. Mills alluding to that? (Dr. Mills, I referred to Mr. Treves' article in Allbutt's System). Dr. Thomas pleaded guilty of not having read that article, but quite agreed that now we understand more definitely the meaning of the more grave abdominal symptoms in reference to lesions of the appendix, morphia, by masking the symptoms, and giving the feeling of ease and well-being to the patient, was a dangerous drug, and considered that when there were symptoms of a rupture of the appendix in such a manner as to cause a persistent and a spreading lesion, it was infinitely of less risk to the patient to operate at once than to temporise. Dr. Mills was to be heartily congratulated on his definite dogmatism. More lives had been lost by delaying an operation in severe cases of appendicitis than had been the case by operating early and perhaps unnecessarily. A quickening pulse and persistent vomiting, with the other symptoms, was a sure sign of a severe, persistent, and probably of a spreading lesion. Recurring appendicitis should also be operated upon, for recurrence was a sign of more than a temporary lesion.

Dr. BINNEY said: When Dr. Mills chose the title of his paper he only wished to include those cases of definite inflammation in connection with the appendix, giving the classical physical signs. He did not want to include all cases of so-called "appendicular colic." Such a condition had been described some seven years ago; it seemed to be a condition which we have all experienced. Speaking in regard to statistics, if such cases are included as cases of appendicitis, then the mortality would be low—and such cases have been included—cases that were admitted, treated and discharged from hospital in a few days, are signed up as appendicitis. Mr. Treves treatment has been criticised, which is bold. I have read nobody's writings with more delight, and I think his works are most convincing. I must say, however, on the subject of appendicitis, he has rather stuck to old ideas. The title of his article on the subject in Clifford Allbutt's System of Medicine, "Perityphlitis," might, I think, have been appendicitis. With the others I would like to thank Dr. Mills for his paper.

Dr. SYDNEY JONES said that for the purposes of treatment he distinguished three forms of appendicitis. He did not mean to affirm that these forms are distinctly defined, for as a matter of fact one form might pass into another, but he found such a division a good working one. The *first* form is the fulminating variety, characterised by severe pain, frequent vomiting, high temperature and rapid pulse, 110 or more, with collapse. In this form the urgency of the symptoms make it manifest that operation should be performed without delay. The *second* form is marked by some pain, perhaps a little vomiting at the onset, but not continuously, slight rise of temperature, a pulse of about 104, certainly not exceeding 110, and a swelling of perhaps considerable size in the iliac fossa. This swelling may gradually melt away, and all symptoms disappear. If this should be the case operation is of course not required. But the swelling may not disappear, it may increase and perhaps be felt also per rectum; the pulse may suddenly run up to 110 or more, and vomiting, perhaps of green matter, set in. In such a condition operation is called for and should not be delayed. In the *third* form the symptoms are slight. There is a moderate degree of pain, a slight rise of temperature, and a pulse below 110, and there is usually no vomiting, or if any it may occur once or twice at the onset of the attack. There is also a little resistance and tenderness in the fossa. These symptoms and signs gradually disappear, the patient being at no time alarmingly ill. In these cases operation is not required unless there is recurrence. After a second attack, however, the appendix should be removed in an interval, because repeated attacks of even this mild character lead to the formation of adhesions, which are often the cause of pain and constipation, and which are frequently so tough and strong and the parts so matted together that removal is rendered very difficult. Dr. Jones referred to the significance of sweating as a sign of the formation of pus; also to the value of leeches over the affected region in the early stage of the third form of the disease. As to opium, he thought a single hypodermic of morphia at the onset of the attack, when the pain was very acute, could scarcely be refused; but he condemned the practice of keeping the patient under the continual influence of the drug as mischievous, as it masked the symptoms.

Dr. **Clark** said that he had been much attracted by the title of Dr. Mills' paper, and that he had come to the meeting expecting to hear appendicitis discussed from a medical point of view, instead of which it was rather from that of the surgeon that he thought it had been approached. Still, Dr. Mills had given them a most interesting and suggestive paper, and he eminently deserved the thanks of the meeting. His own experience, derived from over twenty years' experience of ordinary general practice, was that the fulminating cases were rare, those of abscess more common, but that the majority of cases did well under ordinary medical treatment, and that often recurrence did not take place, or not more than once. He had seen several cases with high pulse and temperature on the first day, in which the symptoms abated on the second, and he would be disposed to extend the time after which operation should be done when the pulse remained at 110 or over for at least twenty-four hours instead of twelve, as Dr. Mills apparently suggested. Whilst he would not for a moment allow such considerations to prevail against operation when the medical man had made up his mind that one was absolutely necessary, he thought that the question should be considered with a deep feeling of responsibility, and that the very heavy expense of such proceedings, when done in private practice, should be borne in mind; it was one of the reasons, of course not the only one, against operation in mild cases.

Dr. **Sinclair Gillies** said that in proposing any operation of this sort one must be convinced that the operation is necessary. That early operation is necessary or even advisable in all cases he denied. Mild cases, which formed the majority, recovered without any interference whatever. Taking all classes of cases, Mr. Treves estimated the mortality at 5 per cent., and the speaker doubted whether surgical interference at the onset in all cases would show an improvement on this. He considered it advisable in most cases to wait till the acute stage was over before operating. In deciding the question of early operation he considered the pulse rate of the utmost importance. In the fulminating cases quoted by Dr. Mills, from the pulse rate alone it was more than probable that general peritonitis was present. In cases where general peritonitis was absent it was rare to get in the early stage a pulse rate of over 120 per minute. If called at the onset to a case with fever, pain, and a pulse of 100 to 110, he would see the case in six hours and note whether the pulse rate were increasing; if it increased to 120 or more, especially with a moderate temperature, he would advise operation. When the pulse was over 120 when first seen he would see the case in two hours, and if the rate were increasing he would advise operation. The pulse rate was of much more importance than the height of temperature or severity of pain. He quoted a case seen thirty-six hours after onset sitting propped up in bed reading the paper, with freely moving, non-rigid, and but slightly tender abdomen, but a pulse of 140, small and slightly irregular. Immediate operation shewed general peritonitis. In cases where a localized mass formed early, he would watch carefully, and if after the third day this mass still increased in size, and the pulse became more rapid, he would advise operation. In mild cases he would not advise operation during the attack. Attention to the patients, general condition and pulse, gave ample warning of necessity for operation.

Dr. **Chenhall** said: I congratulate Dr. Mills on his excellent paper, and trust I may be excused if somewhat catechetical in asking him some questions. His replies may have special value, coming as they will from an observant physician. Is pain felt at McBurney's point in all cases of appendicitis? I refer particularly to cases where the apex is located on the left side, or, as in Dr. Mills' case, where a peri-nephritic abscess was found. McBurney believed it to be present in all cases, but Tubby, in his excellent monograph, says that at this spot pain is *most frequently* felt in appendicitis. The symptom is of most important diagnostic value, and, personally, I cannot recall a case, however mild, in which the symptom was not present. In the case seen by Mr. Thring, and in which operation was deferred at the first consultation, was an examination per rectum made, and if so, was any swelling manifest? Rectal examination has, perhaps, its special value in children, but should never, I think, be omitted in any case; and if distinct swelling is evident, and there be an increase of pulse rate, irrespective of any distinct rise of temperature, operation should not be delayed. Does perityphlitis ever occur without the appendix being involved? The question is important and worthy of thorough investigation. It was once thought that the cæcum was invariably the organ affected. Some surgeons though, whose opinions command our highest regard, hold that in recent cases quoted as perityphilitis, removal of the appendix has not been performed, or if removed, the organ has not been fully examined. It seems reasonable to believe that in inflammatory disturbances arising from the presence of impacted fæces in the cæcum, the activity and virulence of the bacillus coli communis, numbers of which exist in the appendix, is greatly increased and appendicitis is thereby induced. I understood Dr. Mills to say that in one of his cases the pulse and temperature having reached normal on the third day, he regarded the patient as having recovered from a mild attack. I agree with Dr. Maitland that where the pulse and temperature descend to normal about the third day, there is no certainty of recovery; and where, after a distinct decline, both temperature and pulse rise again about the sixth day or later, there is strong suspicion of the presence of pus; and if there occur an accompanying rigor, suspicion becomes a certainty, and early operation is imperative. Are leeches of value in the early stages of acute appendicitis? It is agreed, at any rate among surgeons, that there is no medicinal treatment for appendicitis; that opium and morphia, by obscuring symptoms create a false security, and that the administration of purgatives is distinctly dangerous. But in mild cases of catarrhal appendicitis, something must be done, and I believe leeches are of value. There is a rare, though very important aspect of appendicitis, which is not often discussed. I refer to the condition of hypochondriasis, and instance a case known to some members present. A man believed himself to be suffering from appendicitis, and consulted two surgeons, neither of whom saw justification for removal of the appendix. It was afterwards removed by a leading surgeon in an adjacent state. This interesting specimen, the largest appendix I have ever seen, was afterwards examined by one of the leading pathologists of New York, who pronounced it perfectly sound. The appendix, afterwards accompanied its possessor, who, by-the-bye, was not relieved by the operation, and his wife, practically all around the world. Two years later his wife, believing herself to be the subject of appendicitis, clearly described symptoms and affected signs indicating the disease and accurately located McBurney's point, yet there was neither increase of pulse rate, rise of temperature, nor other indications of a feverish state. The condition caused her much anxiety, and ultimately created a distinct hypochondriasis, if not a neuromimesis. In such a case, would it be justifiable to remove the appendix? I admit that the question of operation is a debatable one, but by analogy, with a similar condition arising from varicocele, the operation not involving great risk, and all other measures having failed, it would seem justifiable to remove the appendix in hope of relieving the mental distress.

Dr. **Maitland** said he wished to congratulate Dr. Mills on his able and instructive paper. He thought that appendicitis should be placed in the category of purely surgical diseases, because the vital question was "when to operate," and was of opinion that he who operates was the best judge when to operate and when not to operate. He thought that all cases of appendicitis should be admitted into surgical wards, and not under physicians, but if every physician was like Dr. Mills, and recognised that there was practically no medical treatment of appendicitis, then this would not be necessary. In an attack of acute appendicitis the difficulty was—should the case be operated on at once? Is pus forming? Will general peritonitis develop? We know the symptoms which such conditions give rise to, but as Dr. Mills had shewn in the cases he had mentioned, and unfortunately most of us had had similar cases, we may get acute implication of the whole abdominal cavity, or an abscess extending up towards the kidney and liver without the patient being apparently ill. He disagreed with Mr. Clubbe when he stated that every case of appendicitis should be operated upon as soon as the diagnosis is made. Bearing in mind the facts that (1st) during an acute attack the patient's general condition was not of the best for an abdominal operation; (2nd) there was probably a collection of inflammatory products present around the appendix; (3rd) if an operation be done during the acute stage drainage may be required, and there was more danger of an incisional hernia; this latter was not very important, but still it was a factor. Bearing in mind these facts it was better not to operate during the attack, but to wait till about three weeks after the attack had passed and then operate; of course, that was provided the operation was not directly indicated by the patient's general condition. The best guides for immediate operation were: (1st) Pulse; if the pulse, with the other symptoms of appendicitis well marked, went up to 120 and stayed there from six to eight hours, then he thought immediate operation was indicated, and the operation was more urgently needed if this condition of pulse coexists with a low temperature. The next best guide is the temperature. If there was a fall in the temperature after the first acute rise, followed by a prolonged rise, especially if it occurred after the sixth day, then operate at once. Great stress was laid upon this by Tubby in his very able monograph. He thought that every case of appendicitis should be operated upon, but not during an acute attack if it could be avoided. He would like to point out to Mr. Clubbe that it was only the small minority of cases of appendicitis that develop general peritonitis, and because the small minority of cases do develop it was not an argument for immediate operation in every case, it was an argument in favour of earlier operation. To use a simile attributed to Mr. Treves, "one might as well operate on every case of gastric ulcer because some cases end in fatal perforation."

Mr. **Hankins** said that he had gradually become a convert to the expediency of early operation, and his progress in this direction had been *pari passu* with the improvement in the technique of operating. What would not have been a justifiable operation some years ago could now be performed with a minimum of risk, given a capable surgeon and favourable surroundings, and he was proud to think that in this community these conditions would not be hard to find. He would point out that the fulness felt in the rectum and iliac fossa with tenderness over McBurney's point were, from the point of view of the early operation, comparatively late symptoms, and if waited for, the most favourable moment for operation would probably be missed. In the earliest stage, pain radiating from the umbilicus was the symptom most commonly met with, and in arriving at a diagnosis between appendicitis and simple colic, the administration of a purgative, which would probably relieve the symptoms in the one case and not in the other, would be of the greatest assistance. It was customary to smile at the haste with which some American surgeons attacked the appendix, and in a Philadelphia journal he held in his hand an instance was given where whilst two members of the staff of a hospital were operating on different patients within the walls another member of the staff was outside trying to induce a third patient to come in and have his appendix removed. The patient declined, and lost his life in consequence. The fact that an appendix looked normal on removal was no proof that it was not the cause of the trouble, as had been proved in many instances where frequently recurring slight attacks had been permanently got rid of by the operation.

Dr. **Crago** said he was particularly interested in the treatment of suppurating appendicitis, where there was a localized accumulation of pus, as he had opened and drained about half a dozen of such cases, without removing the appendix, during the past twelve months. In one of the cases he made his incision in the flank, and was able to reach the abscess cavity behind the ascending colon. They had all closed up kindly, with one exception, that of a young girl of ten, from whom he had evacuated a large quantity of very fœtid pus on the ninth day of her illness, about three months ago. A sinus had remained ever since, but was now nearly closed. He was anxious to hear what was the probability of recurrence in these cases. He had assisted another surgeon a short time ago, who, on finding an accumulation of pus, which was shut off from the general peritoneal cavity, contented himself with evacuating and draining the cavity, and about three weeks later cut down again and removed the appendix, which had a large perforation in it. The concretion which had caused the trouble was found loose in the cavity. He (Dr. Crago) had himself had several attacks exactly corresponding to what Talamon described as "appendicular colic"—sudden onset of severe pain in the region of the umbilicus, causing vomiting, and once or twice attended by a slight rigor. The temperature generally went up to 102° or 102·6° for a time, and at the end of forty-eight hours he was able to get about again, but felt very weak. The last attack he had, now some seven or eight years ago, was much more severe, and laid him up for a fortnight; there was then swelling and tenderness over McBurney's point. He was treated with leeches and the mixture of castor oil and laudanum mentioned by Dr. Sydney Jones. Since that time he had had no return of the symptoms, and was not inclined to have his appendix removed. He had always been glad to inject a quarter of a grain of morphine at the onset of the attack, and notwithstanding the statements made to-night, should not hesitate to give a hypodermic of morphine to any case he was called to where there was acute pain. He of course agreed in the main with Dr. Mills' conclusions as to the advantages of early operation, still there were cases where it was difficult to decide for operation on the first attack. He had attended a very severe case six years ago, where there was distinct peritonitis, and probably pus, but the patient completely recovered without operation and had remained well ever since.

Dr. **HINDER** said he was well acquainted with Dr. Mills' paper, and agreed with him on the main arguments. He thought that most of those present would find that he fairly definitely laid down the difference between what we may term the mild cases, those without any special temperature, pulse or other symptoms, and which subside immediately after a dose of aperient. The main point at issue was as to whether we should recommend immediate operation or wait on until bad symptoms set in, such as a pulse of 120 or so, and distention. The answer to this could only be found by considering the mortality on each side. The medical treatment claimed five per cent. of deaths. Treves was quoted at one per cent. of deaths, but he really had only one death in a little less than 150 cases which had not ruptured. For his own part he had operated on 78 cases in all and 48 of these were cases which were either operated on in the interval or many of them in the acute stage and just on the point of rupture, Everyone of this 48 recovered. He had not the least doubt but that many other men present could show as good a record. It must be admitted, then, that the mortality of immediate operation in the hands of those accustomed to operate was to say the least of it as low as it could well be brought, so that there was only the sentimental factor to be considered, a factor which in the face of a dangerous malady should have no influence on the mind of a sound practitioner, be he physician or surgeon. For his own part he never could tell whether an appendix was about to rupture, nor did he know anyone else who could, and an operation conducted on a patient who had a ruptured appendix or an abscess was the victim of a reprehensible delay either on his own part or that of his medical attendants. He had made the mistake himself, but for some time past he had resolved to do so no longer.

Dr. W. E. **WARREN** said he was honestly of opinion that there were many cases where the appendix had been removed when it was not absolutely necessary. He knew of a medical man who had six or seven attacks of appendicitis, but had objected to have the appendix removed, and he was now quite well. He did not think operation was necessary in every case.

Dr. **MCDONAGH** said from a physician's standpoint he would like to ask Dr. Mills' experience in cases of so-called "rheumatic appendicitis," where full doses of salicylate of sodium afford relief of symptoms. I thought that Dr. Mills or some of the preceding speakers would have discussed this class of case, reports of which have appeared in *The British Medical Journal* on several occasions Dr. Sydney Jones alluded to salicylate of sodium being beneficial in some cases, and I have certainly found this line of treatment beneficial in some instances. The present surgical treatment of appendicitis is comparatively modern. What, then, became of the cases treated antecedent to this? I strongly believe they were not correctly diagnosed, and death was ascribed to other causes. Our more exact methods of diagnosis have revealed the true nature of the disease. Doubtless many existing cases are missed, notwithstanding their frequent occurrence. There is one point Dr. Mills has laid great stress on, viz., withholding of opium when first called to see the case, and rightly so; because the immediate pain being relieved, symptoms are masked, and one is fallaciously led to believe there is an actual improvement of symptoms. Only when a second attack supervenes does the attendant realise its true nature and thus often a most suitable time for operation is lost. Many patients object to any operative interference, and other palliative measures have consequently to be adopted. The question is often asked, Is there any danger in the operation? and patients elect to take the greater risk of recurrent attacks. I am convinced that appendicitis, in the large majority of cases, demands the surgeon's and not the physician's care, and early operative measures insure the best results. With modern aseptics and a good operator, the risks are reduced to a minimum.

Dr. **RENNIE** said although a physician, he was certainly of the same opinion as Mr. Clubbe and Mr. Hankins. He had thought of this matter for a considerable time, and was satisfied the appendix was a death trap, and the sooner it was removed the better for the patient. As to what are mild cases and what are severe it was very difficult to decide, and the mild case of to-day was the severe one of to-morrow. With the precautions mentioned, by Mr. Clubbe he was of opinion that the earlier the operation was done the better chance the patient had of recovery.

Dr. **MILLS** in replying, thanked the members for the cordial way they had received the paper. He was pleased that it had provoked such an interesting discussion. He did not intend to reply to all the points that had been mentioned in the discussion; some of the speakers had already answered those who preceded them. He had never yet seen a case of appendicitis where the pain was confined to the left side only. He thought that Mr. Clubbe's remarks had been slightly misunderstood, for some members seemed to think that Mr. Clubbe would operate in every case as soon as the diagnosis was made. Mr. Clubbe laid down certain conditions under which such a course should be adopted, viz., ideal surroundings and efficient help. He (the speaker) had given the surgeons the appendix, for he recognized and believed that appendicitis was a surgical disease. With regard to Dr. Gillies' remarks, he would like to say that in his opinion, Dr. Gillies did not take a broad enough view of the question. The mortality of a disease was not the only question connected with it, and with regard to the disease under discussion this applied with greater force than in most other diseases. The liability to recurrence was very great, and mild cases could hardly be said to be cured, if within a few months recurrence took place. A man with frequently recurring attacks of appendicitis was in a bad way, even though the complaint was not fatal. There was the suffering and pain and inconvenience and the inability to do his work, all of which must be considered and mere reliance upon mortality statistics would, therefore, be misleading. Further, in the statistics quoted by Dr. Gillies, the question of recurrence was not fully considered. Dr. Clark had complained of the misleading title of the paper, and he (the speaker), thought with some justice. Still, the title was an attractive one, as evidenced by the large attendance. As Dr. Clark said, a grave responsibility attaches to those who advise operation in appendicitis, but the responsibility also attaches to those who say "wait." The responsibility then is, to a certain extent, lessened in those cases where operation has been performed because the exact condition of affairs is known, whereas considerable doubt must always exist in those cases where an expectant attitude is maintained. He thought Dr. Chenhall had slightly misunderstood his remarks, for he had not referred to the position of the appendix as being up near the kidney, nor was there any doubt in the diagnosis of the case seen with Dr.

Thring. The question there was, should operation be performed straightway? He thought that if such a course had been adopted it would have been better for the patient. He certainly would not advise removal of the appendix in a hypochondriac unless there was strong evidence of disease of the organ. He was pleased to think that in the main Dr. Sydney Jones had agreed with him, especially in the attitude he had taken up with regard to the giving of opiates. Dr. Jones' remarks on the alteration of the character of the disease during later years were very interesting. He could, however, hardly agree with him in his belief in the efficacy of salicylate of soda in certain cases of appendicitis. He knew that certain cases of appendicitis were classed as rheumatic, but he certainly had grave doubts of the existence of such. He again thanked members for their congratulatory remarks, and urged upon physicians the advisability of calling in a surgeon in all cases of appendicitis where there were any serious symptoms, for such a course would be a pleasure to the physician and of advantage to the patient.

The Council met at the Editor's Room on Friday, 17th May. Present: Drs. Foreman, Knaggs, Todd, Crago, Rennie, Hankins, Hinder, Jamieson, Clark, Worrall, Fiaschi, and Abbott.

The minutes of the previous meeting were read and confirmed.

The following members were elected: Drs. Romeo, W. W. Stevens, H. Busby, Agnes Bennett, C. V. Bowker, V. W. Savage, R. W. McCredie, Lucy Gullett, and A. L. Kerr.

The HON. SECRETARY stated that as the Articles of Association were being reprinted, it was thought advisable to have the various resolutions passed from time to time included in the pamphlet. After consideration and discussion, it was resolved to include the resolutions.

A letter was read from Dr. Barrington, asking for a conference on the subject of the private wards of the Lewisham Hospital, also the Hon. Secretary's letter in reply.

Resolutions passed by the Western Suburbs Medical Association on the question of the private wards of the Lewisham Hospital were read.

Resolved that a conference with the medical staff of the Lewisham Hospital as requested be held on Friday, 7th June.

A letter from Dr. Heard, of Orange, was read, regarding his status with the local medical men of the district.

Letter was read from Dr. Woodforde, regarding the registration of B. A. Leonard, and also a communication from the Medical Board on the subject.

Letter from Dr. C. H. Hozier-Smith, of Lismore, with regard to certain statements of Delph Sing, an unqualified and unregistered practitioner, was read.

Letter from Dr. Warren, of Wagga Wagga, calling attention to the advertisement of the Australian Natives' Association.

The HON. SECRETARY reported that Drs. Hanson, Pardey, W. G. Watson, and Eichler had been appointed medical officers of the Medical Institute, M.U.

Dr. TODD brought the question of obscene publications under the notice of the Council, and suggested that the attention of the Medical Board be drawn to the publication of a certain book published by Dr. Gorrick. Resolved that the matter be referred to the Medical Board.

The HON. SECRETARY reported that the Court Progress Lodge was advertising for a medical officer, and it was resolved that a circular be sent to the medical men in the city, suggesting that they should not oppose the election of any of the medical men who had retired from the Manchester Unity.

The HON. TREASURER reported that the credit balances were, general account £342 13s. 4d., and *Gazette* £70 6s. 11d., and that £198 6s. had been repaid to the contributors to the *Gazette* purchase fund.

Accounts passed: Pepperday & Co., £3 13s.; petty cash, £3; advertisements, £1; *Gazette*, £67 10s.

The Council met at the Editor's room on Friday, 7th June, at 8.30 o'clock. Present: Drs. Foreman, Todd, Fiaschi, Crago, Hinder, Hankins, Quaife, Abbott.

The minutes of the previous meeting were read and confirmed.

The following members were elected:—Drs. R. C. H. Forster, J. J. Kelly, John Harris, Julia Carlisle-Thomas, and H. Throsby.

The PRESIDENT announced the death of a member of Council (Dr. C. Dagnall Clark).

Resolved:—"That the Council records with deep regret the death of one of its most respected members (Dr. C. Dagnall Clark). The late Dr. Clark always brought to bear upon the subjects under consideration, the clear judgment of a highly cultured gentleman. His death is a distinct loss to the Council and to the Branch. That a copy of the foregoing be sent to Mrs. Clark, with an expression of the deep sympathy of the members of the Council with her and her family, in their sad and sudden bereavement."

The HON. SECRETARY reported the substance of the complaints made by the Staff of the Lewisham Hospital, regarding the report of the Investigation Committee The suggestions made by the Hon. Secretary for the alteration of the report were approved.

The delegates of the Staff of the Lewisham Hospital (Drs. Fairfax Ross, Barrington, Maguire and Pym) interviewed the Council, with regard to certain statements made in the report of the Investigation Committee.

The corrections in the report, as suggested by the Council, were approved by the delegates from the Staff of the Lewisham Hospital. The deputation thanked the Council and withdrew.

The subject of the Moama Sanatorium was brought before the Council. Resolved that the matter be left in the hands of the President to deal with.

A case was brought under the notice of the Council of a member circulating professional cards. The member to be written to for an explanation.

Letter from the Hon. Secretary, Victorian Branch, with reference to the federation of the whole of the Australian Branches was read. Letter to be acknowledged.

Dr. Heard's complaint.—Resolved, "That since the action of the Orange Medical Practitioners declining to meet Dr. Heard in consultation was taken without reference to the Council, the latter does not see its way to interfere, especially as some of the Medical men are not members of the branch."

The resignation of Dr. Mullins, as Librarian, was accepted with regret.

Letter read from Mr. Clubbe, regarding a circular published by Mellin's Food Company, in which his name was mentioned. Resolved, "That the correspondence be published in the *Australasian Medical Gazette.*"

Read letter from Dr. Florance, relating to the Australian Natives' Association in Cootamundra.

The HON. SECRETARY reported that he had not yet received any reply with reference to Dr. Gorrick's book.

The question of a dispensary conducted by a member of the Branch, was brought before the Council. Resolved that the Hon. Sec. write asking the member to shew cause why the Provident Dispensary, of which he is described as Resident Medical Officer, should not be declared "prejudicial to the interests of the medical profession" on the ground of its being, presumably, a proprietary institution.

QUEENSLAND BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

A GENERAL meeting was held on Friday, June 7th, the following members being present: Dr. Taylor (President), Drs. Cameron, Lockhart Gibson, Orr, Flynn, Culpin, Sutton, South, Wield, Hopkins, Hirschfeld and Brockway.

Drs. Ham and Macdonald were elected members of the Branch, and Drs. Meek and Taylor nominated for membership.

Dr. CAMERON exhibited an hydatid cyst, and narrated the notes of the case as follow: Bottle-shaped hydatid cyst removed from peritoneal cavity. Stoutish girl, *æt.* about 22, came complaining of retention of urine. She had had difficulty in passing water for over two years, but never retention before. On attempting to pass a catheter, it was found that the vaginal passage went straight up behind the pubes, and some difficulty was experienced in passing the catheter. The pelvis was occupied by a large swelling, which rose to within two inches of the umbilicus, was slightly more prominent on the left side, and felt almost solid. Douglas' pouch was distended by an obviously tense, fluid part of the swelling, and bulging the vagina forwards and causing the passage to pass right up behind the pubes. It could be plainly felt as a fluctuating swelling from the rectum. The external os could be just felt at the extreme top of the passage, a little to the left of the middle line. This swelling was not movable. Another lump, apparently about five inches diameter, occupied the splenic region, being somewhat movable. Retention recurred about every four or five days. The large swelling was tapped from the vagina, and clear fluid evacuated, but the fluid was not caught and measured. The swelling in the splenic area could now be most easily pushed by the hands to any part of the abdomen without giving pain. About six weeks after the tapping the abdomen was opened below the umbilicus, and the specimen exhibited was removed without special difficulty. It was apparently in the great omentum. Its shape is peculiar. The sac wall is very thin, and a few smaller cysts can be seen at the small end. The shrivelled sac of the large cyst could be felt in Douglas' pouch. A third smaller lump, very slightly movable, had been detected about halfway between the umbilicus and ensiform cartilage. This was, with a little trouble, coaxed down to the wound, and enucleated or stripped out of the peritoneal investment. It was about two inches in diameter, and was full of smaller cysts. No ligature was required. The girl is now quite well. Hydatids are less common in Queensland than any other Australian State. They are decidedly rare in this part of Queensland. They are less common in women. Cysts of peritoneum, omentum and mesentery only provide 1·4 per cent. out of 1,900 cases, according to Thomas.

Dr. CAMERON exhibited a patient, and narrated the progress of the case as follows: Boy, *æt.* 16, exhibiting a train of symptoms extending over two years. He was then a small boy, sharp at lessons, and succeeded in winning a Grammar School scholarship. It was noticed at school that he became dull and stupid at work, that he laughed and giggled in a stupid way at merest trifles, and that he continually fell down in the play-yard in a helpless way and was unable to rise from the ground without assistance. He also became very stout and flabby. He generally fell over backwards, and while sitting in a chair his head would be often nodding backwards. Very gradually he has developed a peculiar, partially paralytic, partially spastic gait, with a tottering forwards, and now can hardly walk without support. He turns round slowly and awkwardly; all his movements are slow, clumsy and ponderous. The knee-jerks are generally active; no ankle clonus is present; sensation of touch is good. He has also incontinence of urine and fæces, which has existed for about nine months. His hand-grip is rather weak on both sides. Optic neuritis has been present for at least three months; the pupils are always widely dilated, admitting of easy ophthalmoscopic examination; they re-act to light and accommodation. Vision has not been impaired. I have thought lately that there was slight protrusion of the left eyeball, but the altered expression of the face may account for that. The face is now dull and heavy, and partakes of the increase in fatness noticed all over the body. He has a ravenous appetite. The urine contains no albumen. Headaches have never been complained of much; they certainly have not been a prominent symptom. There has never been any vomiting. *History.*—The mother dates his injury to a blow on the nose by a cricket ball three years ago; after that he studied hard for a scholarship. He was under treatment for nasal obstruction, and had purulent discharge from both ears, which had stopped over nine months ago. The mother thinks the head has increased in size, judging partly by his hats. The optic neuritis is of late development. The difficult gait, loss of memory, and incontinence of evacuations are getting worse.

Dr. LOCKHART GIBSON said that as a result of a rapid superficial examination of the eyes in the meeting-room, he found dilated pupils, contracting only to strong light, and not contracting to convergence, which last was imperfect. No paralysis of the external ocular muscles; no increased tension; no hemianopsia; marked optic neuritis, with some retinitis. He found no blue line on the gums. With the exception of slight foot-drop on each side, the state of his inferior extremities and the rest of his body was rather a spastic one, and his knee reflexes were distinctly increased. The slightest push caused him to lose his balance, and if not caught he would topple over, the whole body becoming quite rigid. From what Dr. Cameron had said, the state of his reflexes evidently varied. The blow on the nose might have caused injury to the base. The case suggested pressure on or at the base, possibly from distended third and lateral ventricles. It reminded him of a boy, of much the same age, sent to his care at the Brisbane Hospital for Sick Children by Dr. Sheaf, of Roma, with the query: Is the condition the result of a blow on the head received some years ago, or is it due to chronic lead poisoning? He was nearly blind, and became quite so, optic atrophy developing. He had severe headaches, with attacks of giddiness and vomiting, with intervals of feeling fairly well. No paralysis. He was not confined to bed. After remaining in much the same state for some months, he died quite suddenly. *Post-mortem.*—The house-surgeon, Dr. Harold South, found the membranes at the base much thickened, great distention of the lateral ventricles, distention of the third ventricle, and thinning of the cranial bones of the vault.

Dr. LOCKHART GIBSON read a paper upon "Hemianopsia," which will appear in a future issue.

STATEMENT OF ACCOUNTS FOR BANQUET HELD AT HOTEL AUSTRALIA TO WELCOME THE RETURN OF MEDICAL COLLEAGUES WHO HAVE SERVED WITH H.M. FORCES IN SOUTH AFRICA.

Dr.	£	s.	d.
To Total Cash Receipts	158	1	0
	£158	1	0

Cr.	£	s.	d.
By Refunds to subscribers not present at dinner	5	10	0
„ Exchange Country Cheques	0	4	6
„ Blank Cheques	0	1	0
„ Secretarial Work, Mr. Grigson	2	2	0
„ Stamps	2	5	6
„ Stationery and Plan of Table	7	7	6
„ Hotel Expenses	118	2	6
„ Gratuity Head Waiter	1	0	0
„ Petty Cash (refunded)	0	10	0
„ Piano Accompanist	2	2	0
„ Balance	18	16	0
	£158	1	0

The Balance to be paid to Mr. Willows, Hon. Treasurer of the Fund for the support of the children of the late Dr. Hunter.

G. T. HANKINS, } Joint
T. FORKMAN. } Hon. Treasurers.

SHORT EXTRACTS FROM FOREIGN MEDICAL LITERATURE.

By Walter Spencer, M.D., Enmore, N.S.W.

◆

Les Nouveaux Remèdes.—September, 1900, to January, 1901—Dr. Chapelle reports that *cacodylic acid*, given by the mouth or rectum has been followed by evil consequences which are absent when the drug is given hypodermically. In the digestive tube it meets a reducing medium which transforms it into cacodylic oxide, a toxic product with an aliaceous odour. This odour may be perceived following the hypodermic method if the drug be not pure. Prof. Letulle reports some successes in treatment of tuberculous patients. Professor Hayem in chlorotic anæmia; Renault in epithelioma of the tongue, and Garaud in chorea.

In the normal adult thyroid gland arsenic in average quantity of $^{\text{mg}}$, 17 less in the thymus, mammary gland and milk, in infinitesimal quantity also in nails, hair, horns, etc. It appears to be furnished by foods such as milk, cabbage, turnips, potatoes, and certain grains.

Spermin is not exclusively a constituent of the male generative organs, but is normally present in the blood, in the prostate, the ovaries, pancreas, thyroid, thymus, and spleen, according to Dr. Max Salomon, of Berlin, who explains the means by which it maintains the alkalinity of the blood in its normal state, and argues that its administration in a soluble form is indicated for diseases when that alkalinity has diminished. It is useful in conditions of inanition, anæmia, phthisis, convalescence from typhoid, marasmus of the aged, premature accouchements, and skin disease, also in perverted metabolism, uratic diathesis, scurvy, diabetes, mellitus, rachites, nervous disease, neurasthenia, hysteria, epilepsy, chorea, tabes, paralysis, neuritis, heart, lung, and kidney disease, intoxications by poisons, either organic or inorganic.

Dr. Bornikoel has had good results with *dionin* in parametritis, uterine carcinoma and articular rheumatism. It calms and alleviates. It acts fifteen minutes after absorption, and is never followed by headache or vomiting.

Dr. Mankiewiez declares sulpho-salicylic acid to be the best reactive for albumen in urine, it dissolves phosphates and urates, other salts give no precipitate. Sugar and bile are unaffected by it; a solution of mucin only might give momentary perplexity, but its opalescence rapidly disappears with heat.

Dr. Fornaca treats *chorea* with salicylates successfully. The remedy is rapidly absorbed by the skin, and appears in the urine after eight hours.

Dr. Marie treated eight severe cases of *pneumonia* with brewer's yeast added to the usual remedies, and congratulates himself on the good results.

Professor Zenetz, of Warsaw, has studied the action of *caffein*. He finds that it is not a true diuretic, and is contra-indicated in renal disease as well as in arterio-schlerosis and its dependent cardiac troubles, also in angina pectoris. In all these, metabolism, especially renal function, is very depressed. Consequently the elimination of caffein is more difficult and its cumulative effect upon the enfeebled heart is to be feared.

For the venous variety of *nævus* of infants, Prof. Unna recommends compression aided by plasters of the following twice a day until a thick brown crust appears, which will fall off. The plasters are repeated and each time the patch will become clearer and flatten until it quite disappears:—Collodium, 9 + icthyol, 1.

For nocturnal enuresis Dr. Saunvays recommends the singular procedure of closing the mouth of the urethra with a drop of collodion.

Just Published,

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or
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EDITED FOR THE PROPRIETORS BY
SAMUEL T. KNAGGS, SYDNEY, N.S.W.;
AND FOR THE OTHER BRANCHES OF THE
BRITISH MEDICAL ASSOCIATION BY
A. B. BROCKWAY, BRISBANE, Q.; H. W. BRYANT,
WILLIAMSTOWN, VIC.; J. B. GUNSON,
ADELAIDE, S.A.; AND J. MASON, OTAKI, N.Z.

SYDNEY, 20TH JUNE, 1901.

EDITORIALS.

APPENDICITIS.

IT is only during the last fifteen years, that the attention of both the surgeon and physician has been focussed upon the appendix, and an increased knowledge of its pathology and treatment has relegated this disease to the province of the surgeon, rather than the physician.

Twenty years ago, appendicitis was not mentioned in medical and surgical books, and the maxim of wait and do nothing in the treatment of "typhlitis" and "perityphlitis" is within the memory of us all. But, with increased knowledge came more skilled methods of treatment. How very different is the treatment of a case of appendicitis of to-day with the treatment of a case of "typhlitis" or "perityphlitis" of fifteen years ago Mr Southam, in a recent number of the *Medical Chronicle*, says: "Our knowledge of this disease is now beginning to settle down into its final and definite form. There are still those who take an extreme view, either on the side of medicine, and treat all cases on the expectant plan; or who advocate, on the other hand, operation in every case. Either position is wrong. To operate in every case would be as unsound in surgery, as not to operate in any case would be unsound in medicine."

A vexed and oft discussed question, in the treatment of appendicitis, is—Can the best results be obtained by treating all cases of appendicitis surgically, as soon as the disease is diagnosed? Does the probability of some few cases, developing acute and diffuse peritonitis, justify laparotomy in all cases, during the first 24 hours? There is abundant proof, as Mr. Southam points out, "that it is bad surgery to operate in every case."

According to Professor White, 80 per cent. recover without laparotomy from the first attack; of the remaining 20 per cent., more than half would recover, if treated surgically. It may be said that of the 80 per cent., some relapse—so they do—about 30 per cent., according to Tubby, "not necessarily acute attacks, but they suffer colicky pain, local rigidity, occasional vomiting, and constipation." The point here to be emphasised is that 50 per cent. of cases do not have a recurrence after the first attack It is clear that it would be bad surgery to have operated on all these cases during the first attack immediately the diagnosis was made, far better surgery it would be to operate during an interval when the general condition of the patient is good and the local condition more favourable. The results of operative interference during the quiescent period are better than during primary attacks Mr. Treves gives a mortality of 1 per cent.

There are certain symptoms which point to the advisability of immediate operation, viz.—A continuous rapid rate of pulse (over 120), with the other symptoms of appendicitis well marked; a partial fall in the temperature followed by a sudden rise, also a sudden fall to normal or sub-normal, especially if this condition co-exists with a rapid pulse.

The success of surgical treatment depends on early interference according to the *condition of the patient and the character of the attack;* but it is quite another matter to subject every patient who has an inflamed appendix to a major surgical operation because some few such appendices perforate; as Mr. Tubby puts it, "I am strongly induced to think that no judicious surgeon is prepared to tie himself down to the *routine* early operation in all cases, but would prefer to watch his cases closely and when in doubt operate at once."

PHOTOGRAPHS OF THE MEMBERS OF THE N.S.W. BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

We are requested by Messrs. Falk and Co., Photographers, of Sydney, to state that they are prepared to take cabinet photographs by the Platino-mat method, of each member of the New South Wales Branch of the British Medical Association, who will be presented with a single copy of his own photograph. In addition, a copy of each will be given to the Branch through the Hon. Sec., as well as a group picture, complete in frame, of members of Council. It is hoped that all members will take advantage of this liberal offer, which will be the means of forming a valuable memento of the Branch, as at present existing.

THE AUSTRALIAN NATIVES ASSOCIATION.

The abovenamed Association has just been holding its first annual meeting of representatives in Sydney, and judging from the reports published in the lay press, the representatives devoted a large portion of their time in discussing and passing resolutions condemning the action of the New South Wales Branch of the British Medical Association in declaring their Association prejudicial to the interests of the Medical profession. This seems rather inconsistent with a paragraph in their annual report which states, "The board, however, was pleased to report that branches had not experienced any serious difficulties in obtaining medical officers" (vide *S. M. Herald*, June 11th) Whence all this attention to the Branch in the form of resolutions threatening legislative enactments to compel medical men to consult, etc., if they have not been handicapped in procuring desirable medical attendants for their members? The same falsehood is repeated as was made by their Secretary some months ago about their society being the only one attacked by the British Medical Association on account of the absence of a wage limit, and which was at the time vigorously answered by the Hon. Secretary of the New South Wales Branch (see our Editorial of September, 1900, page 393).

We hear that threats are being held out to country practitioners in New South Wales, that "highly qualified" doctors will be imported from Sydney if they still refuse to accept the post of Medical Officer to the Australian Natives Association. We strongly urge our members not to be intimidated by these threats, but to stand firm in the position already taken up, and thus avoid the disastrous state of affairs that exists in Victoria.

PROCEEDINGS OF OTHER SOCIETIES.

REPORT OF THE INVESTIGATION COMMITTEE.

In the report of the Committee published in the March number of the *Gazette*, two statements are made in connection with the Lewisham Hospital, which, to avoid misconstruction, require amendment as follows:—

Under the head of suburban returns, on page 117, column 2, par. 1, and again, page 118, column 1. par. 4, in the place of "Great objection is also made to the so-called fees paid to the medical officers of the Lewisham Hospital," read: "Great objection is also taken to the fact that fees from patients in the private wards are received by medical practitioners holding honorary appointments on the staff of the Lewisham Hospital."

On page 117, column 2, par. 2 (second half), in place of "The societies generally condemned for various reasons are the North Sydney Dispensary, Manly Medical Society, People's Prudential, A.H.C. Guilds, Leichhardt Medical Institute, Balmain Institute, Parramatta Dispensary, and the private wards of the Lewisham Hospital," read, after Parramatta Dispensary: "Under the head of hospitals, adverse comment is made on the working of the private wards of the Lewisham Hospital."

LETTERS TO THE EDITOR.

THE O'HARA CASE.

(*To the Editor of the Australasian Medical Gazette.*)

Sir,—The resolutions of the Council of the British Medical Association, passed at its meeting held on October 24th, 1900, with reference to Mr. O'Hara and the Victorian Branch have been published in the *Australasian Medical Gazette* of December 20th, 1900, p. 517. The late members of the Council of the Victorian Branch desire that you will publish the following correspondence relating thereto, between the late Council of the Branch and the Council of the Association.

Yours faithfully,
11th June, 1901. G. A. SYME.

"82 Collins Street,
"December 17th, 1900.

"To the Secretary, British Medical Association.

"Dear Sir,—I have the honour to acknowledge your letter of November 1st, with copies of the resolutions passed by the Council at its meeting of October 24th, 1900. I placed the same before a meeting of the late members of the Council of the Victorian Branch, at which it was resolved to ask the Council of the British Medical Association to be good enough to supply them with the following information:—

"1. Was a cablegram received by the General Secretary from the late President of the Victorian Branch, dated 22nd March, 1900, and addressed 'Aitiology, London,' asking the Council to defer the acceptance of Mr. O'Hara's resignation?

"2. If received, on what date?

"3. What was the date on which Mr. O'Hara's resignation was received?

"4. When was it accepted by the Council?

"5. Is a member's resignation usually, or of necessity, accepted when a charge is pending against him?

"6. As the Council 'recognises that the very serious allegation made against Mr. O'Hara should have been considered by them,' would they point out what the course of procedure should have been to ensure such consideration by the Council?

"7. As 'the question has now passed out of the jurisdiction of the Council,' could they state any jurisdiction under which it can be brought; should it, *e.g.*, be referred to the General Medical Council or to the Royal College of Surgeons of Ireland, of which Mr. O'Hara is a Fellow?

"Yours faithfully,
"G. A. SYME.

"British Medical Association,
"429 Strand, London,
"April 19th, 1901.

"Dear Sir,—In reply to your letter of December 17th, 1900, which has been submitted to the Council of the Association, I am instructed to inform you:—

"1 and 2. A cablegram was received from the late President of the Victorian Branch on March 22nd, 1900,

"3. Mr. O'Hara's resignation was intimated in a letter from the Secretary of the Victorian Branch, Dr. Vance, to the General Secretary, bearing date June 18th, 1900, and subsequently confirmed by a cablegram from Dr. Vance, bearing date October 28th, 1900, replying to a question sent by the President of the Council of the Association.

"4 and 5. No acceptance by the Council of the resignation of a member is required by the by-laws, nor does it appear that they have any power to intervene. The Council consider that the by-laws require re-consideration in this respect.

"6. The by-laws do not provide for the contingency which has arisen in this case.

"The question having passed out of the jurisdiction of the Council of the British Medical Association, it is open to any member of the profession to take such steps in referring the matter to any other body as he may see fit.

"I am, yours faithfully,
"FRANCIS FOWKE,
"General Secretary.

"G. A. Syme, Esq., M.B., F.R.C.S.,
"82 Collins Street,
"Melbourne."

AGAINST MEDICAL ADVERTISING.

[Copy.]

195 Macquarie Street, Sydney.

To Messrs. Gollin & Co., Agents for Mellin's Food Co.

Gentlemen,—This morning I received a circular from you, in which you draw attention to the fact that in a clinical lecture delivered at the Prince Alfred Hospital, which was published in *The British Medical Journal* for March 23rd, I had recommended the use of Mellin's Food.

As I very strongly object to my name being made use of in this way, I must ask you to be good enough to withdraw the paragraph that refers to me, in any future circulars that you may issue. I have been told that the same sort of advertisement has been sent to medical men in England. If this is so, I shall be much obliged if you will let Mellin's Food Co. know that I object to this unwarrantable use of my name.

I am, Gentlemen,
Yours faithfully,
CHARLES P. B. CLUBBE.

May 31st, 1901.

172 Clarence Street, Sydney,
1st June, 1901.

Dr. C. P. B. Clubbe, 195 Macquarie Street, Sydney.

Dear Sir,—We have to own receipt of your esteemed favour of 31st May, calling our attention to a circular issued by us, in which we drew attention to the fact that, in a clinical lecture delivered by your goodself at the Prince Alfred Hospital, and which was published in *The British Medical Journal* for 23rd March, you recommended Mellin's Food. As explained to you this morning by one of the members of our firm, we very much regret that this should have caused you any annoyance or inconvenience, and, at your request, we will at once withdraw same from all future circulars, and are instructing Messrs. Mellin's Food Company, Limited, 9 Cannon Street, London, by the outgoing mail to do the same.

We desire to thank you for your courtesy in receiving our representative this morning, and again regretting the trouble we have put you to,

We are, dear sir,
Yours faithfully,
GOLLIN & COMPANY,
Australian Representatives Mellin's Food Company.

EFFECTS OF THE VARIOUS CLIMATES OF NEW SOUTH WALES UPON PULMONARY TUBERCULOSIS.

(To the Editor of the Australasian Medical Gazette.)

Sir,—Mr. Frank Grimley, on his own authority, has issued a circular to medical men in order to obtain a collective opinion on the effects of various climates in New South Wales upon pulmonary tuberculosis in the early stages. May I, through your columns, ask medical men to suspend their judgment until they have heard the matter debated on the paper that I propose to read, entitled "The Climate of the Sea Coast of New South Wales in Relation to the Treatment of Pulmonary Tuberculosis in the Early Stages." Then, perhaps, an intelligent vote on the points at issue may be taken.

I am, Sir, yours, etc.,
W. CAMAC WILKINSON,
M.D. Lond.; M.R.C.P.

University of Sydney.

MILITARY INTELLIGENCE.

New South Wales.

Victoria Cross.—Lieut. Neville Reginald Howse, F.R.C.S. Eng., 1897, has been awarded the Victoria Cross by His Majesty the King, for conspicuous bravery in the field in South Africa. Lieut. Howse was attached to the South African unit of the N.S.W. Army Medical Corps.

Defence Scheme.—The following officers of the N.S.W. Army Medical Corps have been appointed Senior Medical Officers for the districts enumerated in the Defence Scheme of N.S.W.:—P.M.O., Captain T. H. Fiaschi (temporary); Sydney Fortress, Captain G. Lane Mullins; Port Jackson Section, Major S. H. McCulloch; Botany Bay Section, Major J. McLeod: Sydney Fortress Movable Column, Captain Reuter E. Roth; Newcastle Defences, Captain W. L'Estrange Eames; Wollongong Defences, Captain C. Sturt: Field Force, Captain G. H. Walton Smith; Richmond and Clarence Rivers, Lieutenant C. E. Crommelin, Medical Officer.

New Zealand.

His Excellency the Governor has been pleased to approve of the undermentioned appointments :—*New Zealand Volunteer Medical Staff*—Alfred Osborne Knight to be Surgeon-Captain ; Archer Hosking to be Surgeon-Captain ; John Lovell Gregg to be Surgeon-Captain ; George Alexander Morris to be Surgeon-Captain ; Ernest Edward Porritt to be Surgeon-Captain ; William Herbert Goldie to be Surgeon-Captain.

CHANGE OF ADDRESS, Etc.

Boelke, Dr. P. W. R., late of Port Macquarie, has commenced practice at Hunter's Hill, N.S.W.

Barclay, Dr. of Waimate, N.Z., left per *Warrimoo* with the Commonwealth Contingent as surgeon.

Betts, Dr. R., has removed from Walgett to Port Macquarie, N.S.W.

Cortis, Dr. W. R., has returned to Bathurst, N.S.W., from active service in South Africa.

Dawlerns, Dr. S. L., has removed from Gawler to Angaston, S.A.

Ingham, Dr. J. H., has succeeded to Dr. Manly's practice at Werribee, Vic.

Larwill, Dr. J., has removed from South Brisbane to Boonah, Q.

MacCarthy, Dr. C. E. de L., has removed from Lefroy, Tas., to Avenel, Vic.

Markwright, Dr. W. C. has removed from Naseby to Cromwell, N.Z.

Moore, Dr. W. W., has commenced practice at Temuka, N.Z.

Morris, Dr. A. B., has removed from Georgetown to Burnie, Tas.

Perceval, Dr. W. M. C., has removed from Waipara to Te Aroha, N.Z.

Phipps, Dr. J. H., has commenced practice at Mosman, near Sydney.

Read, Dr. Geo., has removed from Braidwood to Picton, N.S.W.

Tilley, Dr. William J., late of Warwick, Q., has succeeded to the practice of the late Dr. Clark, of Ridge Street, North Sydney.

Smith, Dr. A. F., has removed from Strathalbyn, S.A., to Lawler's, W.A.

Willis, Dr. C. S., has removed from Wyalong, N.S.W., to Clermont, Q.

Wilson, Dr. J. B., late of Robertson, N.S.W., has settled at Huntly, N.Z.

Young, Dr. D. H., has removed from Perth, W.A., to Tallangatta, Vic.

OBITUARY.

The deaths of the following medical practitioners are announced :—

Charles Alfred Dagnall Clark, M.R.C.S. Eng., L.R.C.P. Lond., M.B. Lond., of North Sydney, on June 5th.

By the death of Dr. Chas. Dagnall Clark, which took place on the 5th inst. at the early age of 45, the profession has lost one of its most valuable and valued members. A native of London, he was educated at Uppingham School, from whence he matriculated at London University, and entered St. Bartholomew's Hospital. The diplomas M.R.C.S. Eng., L.R.C.P. Lond. were obtained in 1878, and in 1881 he graduated M.B. London.

Dr. Clark came to Sydney nineteen years ago unknown, without means, and in delicate health. Coming under the notice of the Hon. Dr. Mackellar, he was befriended by that gentleman in a manner which Dr. Clark never ceased to gratefully acknowledge. He was elected to the resident medical staff of the Prince Alfred Hospital, having as contemporary Dr. Byrne of Brisbane ; resigning his position in about a year, he took a house in North Sydney and soon acquired a large practice, which, notwithstanding the greatly increased competition, he held to the last. For several years Dr. Clark was Hon. Physician to the Sydney Hospital, and he has been one of the medical officers of the North Sydney Hospital since its inception. For several years he has been a member of the Council of the New South Wales Branch of the British Medical Association, where his wise counsel will be much missed.

Nine years ago he had an attack of tachycardia, and seven years ago a more severe and prolonged attack took place. Since then his health has been good, and quite recently he had expressed himself as feeling very well. At 6 a.m. on the 5th inst. he answered the telephone ; it was a request to visit a patient immediately. Running upstairs to his dressing-room, he was found there a few minutes afterwards in what was thought to be a faint. Dr. Isbister, who was sent for, used every means to resuscitate life without success.

Dr. Clark's was a striking personality. A tall, slightly stooping figure, a face, grave, reflective and intellectual in no ordinary degree, and illumined at rare intervals by a wonderful smile.

Gifted with a splendid memory, his mind was a storehouse of well-arranged and thoroughly assimilated information upon almost every subject. His critical faculties were great. Every question was submitted to a searching examination, however high the authority which had already pronounced judgment. Courteous, scholarly, upright, a gentleman in the true sense of the term, Dr. Clark has left a place in the profession and society not easily filled. To his widow and four young children his death is an irreparable loss.

The funeral took place on Thursday, June 6th, at St. Thomas' Cemetery, North Sydney, and was attended by a large number of the leading residents of North Sydney, in addition to the following members of the medical profession: Drs. Sydney Jones, Norton Manning, Scot Skirving, Foreman, Hankins, Pockley, Rennie, Hinder, Crago, W. Sheldon, Rorke, Newmarch, Arthur, Doak, Clarence Read, Isbister, Foster.

Hartley Dixon, F.R.C.S. Edin. 1886, L.R.C P. & R.C.S. Edin. 1882, L.A.H. Dub. 1877, of Brisbane, on May 15th.

George Dixon Drury, M.R.C.S. Eng., of Otaki, N.Z., on April 14th, aged 75 years.

William Forbes, M.R.C.S. Eng. 1857, L.S.A. Lond. 1862, late of Sale, Vic., at Nice on April 5th.

Francis Welford, M.B., B.C. Cantab. 1891, from wounds received at Vlakfontein on May 29th. Dr. Welford held the position of Surgeon-Captain in the Imperial Yeomanry. He practised formerly at Winton, Q., and Bowral, N.S.W.

Mrs. E. H. ROBISON née McEWEN, late of Prince Alfred Hospital, Sydney, and Matron, Mudgee Hospital, announces to the Medical Faculty, that she (having lately returned from Dr. Otto Walther's Sanatorium for Consumptive persons at Nordrach, Black Forest, Germany) has established a Sanatorium upon similar lines at Leura, Blue Mountains, New South Wales. Terms on application.

"Lynton," Leura.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

THE following persons have been duly registered as legally qualified medical practitioners in their respective states :—

NEW SOUTH WALES.

Buckley, Edward William, M.B. Univ. Melb. 1900.

Cade, Frederick Joseph Richard, Lic. R. Coll. Phys. Edin. 1898; Lic. R. Coll. Surg. Edin. 1898; Lic. Fac. Phys. *et* Surg. Glasg. 1898.

Davies, Reginald Laidlaw, M.B. Univ. Syd. 1901.

Esslemont, John Ebenezer, M.B., Bac. Surg. 1898 Univ. Aberd.

Morton, Selby Woodhouse, Lic. R. Coll. Phys. Edin. 1900; Lic. R. Coll. Surg Edin. 1900; Lic. Fac. Phys. *et* Surg. Glasg. 1900.

Phipps, John Hare, M.B. Univ. Lond. 1897; Lic. R. Coll. Phys. Lond. 1897; Mem. R. Coll. Surg. Eng. 1897.

Prior, Guy Percival Underdown, Lic. R. Coll. Phys. Lond. 1898; Mem. R. Coll. Surg. Eng. 1898; Lic. Soc. Apoth. Lond. 1895.

For Additional Registration:

Lee, Henry Herbert, M.Ch. Univ. Syd. 1901.

Stokes, Edward Sutherland, Dip. Pub. Health, R. Coll. Phys. *et* Surg. Irel. 1901.

NEW ZEALAND.

Keller. P. Martin, M.D. Jefferson Med. Coll. Philadelphia, U.S.A.

Moir, Peter, M.B., Bac. Surg. Univ. Glasg.

Moore, Walter William, M.B., B.S. Univ. N.Z.

Wilson, John Bernard, L.R.C.P. Edin.; L.R.C.S. Edin.; L.F.P.S. Glasg.

QUEENSLAND.

Garde. Henry Lee, M.B. Univ. Syd. 1901.

Greenham, Eleanor Constance, M.B. Univ. Syd. 1901.

VICTORIA.

Deck, John Northcote, M.B. Syd. 1900.

Formby, Henry Harper, M.B. Melb. 1900.

Hill, Reginald Horace, L.S.A. Lond. 1897.

MacCarthy, Charles Edward De Lacy, M.B. Dubl. 1873.

Miller, Lindsay Stevens, M.B. Melb. 1901.

Steele, Leonard Ruscoe, L.R.C.P. *et* R.C.S. Edin. *et* L.F.P.S. Glasg. 1898.

Young, David Hastings, M.B. *et* M.S. Edin. 1891; M.B. Adel. 1894.

Additional Qualification Registered:

Wall, Max, M.B. Melb. 1900.

MEDICAL APPOINTMENTS.

The following Medical Appointments are announced :

Arthur, Dr. Richard, to be Hon. Assistant Surgeon Ear and Throat Department, to the Sydney Hospital.

Bartlett, Dr. W., to be Government Medical Officer at Port Macquarie, N.S.W.

Buick, Dr. J., to be a Certifying Medical Practitioner under the Factories and Shops Act, Victoria.

Clarke, W. H., M.R.C.S., to be a Public Vaccinator for Wellington, N.Z.

Dankins, S. L., M.B., to be a Public Vaccinator for S.A.

Dean, Dr. E. C., to be Officer of Health, Greenbushes, W.A.

Gaggin, Dr. R. N., to be Government Medical Officer at Lismore, N.S.W.

Gresswell, D. A., M.D., to be Permanent Head of the Department of Public Health, Victoria.

Harris, Dr. L. H., to be Hon. Assistant Surgeon to the Sydney Hospital (temporary).

Hickenbotham, Dr. J. R., to be Officer of Health, Newcastle, W.A.

Lovegrove, Dr. C., to be Officer of Health at Cookernup, W.A.

McDonnell, L. G. A., M.B., to be Officer of Health at Herberton, Q.

McGowan, A. G., M.B., to be Officer of Health for Shire of Ballan, Vic. (acting).

Michell, R. T., M.B., to be Government Medical Officer at Wee Waa, N.S.W.

Read, Dr. Geo., late of Braidwood, has succeeded Dr. Ekin's practice at Picton, N.S.W., and has been appointed Visiting Physician to the Queen Victoria Home for Consumptives at Thirlmere, and to the Friendly Societies at Picton.

Seed. Dr., to be Officer of Health at Waverley, W.A.

Shields, O. C. G., MB., to be Officer of Health for Shire of Yea. Vic. (acting).

Skinner, G. H., M.R.C.S., L.R.C.P., to be Justice of the Peace for district of Macquarie, Tas.

Stockwell, Dr. J., to be Medical Superintendent Dunwich Benevolent Asylum, Q.

Stockwell, James, L.R.C.P. and S., Edin., to be Medical Superintendent of the Dunwich Benevolent Asylum, also Medical Officer for the care, inspection, and supervision of lepers detained in the Lazaret at Stradbroke Island, and Superintendent of the Institute for Inebriates at Dunwich Benevolent Asylum (Q).

Stokes, E. S., M.B., Ch.M. Syd., D.P.H., R.C.S. *et* S.I. to be Assistant Medical Officer for the Metropolitan District of Sydney.

Syme. A. E., L.R.C.P., to be Officer of Health for Shire of Lilydale, Vic.

Toft, W. H., M.B., to be Deputy Registrar of Births, etc., at Campbelltown, N.S.W.

White, D. O., M.B., to be Officer of Health for Shire of Winchelsea, Vic.

White, G. V., M.B., to be Officer of Health at Thursday Island, Q. (acting).

MATERIA MEDICA.

"TABLOID" BRAND OF COMPRESSED DRUGS.—We have received from Messrs. Burroughs, Wellcome & Co. the following samples of their well-known "Tabloid" brand of compressed drugs :—

"Tabloid" Iron Citrate Compound, the formula of which is as follows: Citrate of iron and ammonia. gr. 3; sulphate of quinine, gr. 1; arsenious acid, gr. $\frac{1}{60}$. This preparation presents a convenient method for the administration of a ferruginous general tonic, which has been found valuable in diseases of the skin with impoverished blood. It is also held to be useful during convalescence from malarial conditions.

"Tabloid" Benzoic Acid Compound.—The formula for this product is as follows: Benzoic acid, gr. $\frac{1}{2}$ (0·032 gm.); codeine, gr. $\frac{1}{10}$ (0·0065 gm.): menthol, gr. $\frac{1}{10}$ (0·065 gm.); powdered ipecacuanha, gr. $\frac{1}{10}$ (0·065 gm.); cocaine hydrochloride, gr. $\frac{1}{40}$ (0·0016 gm.); red gum, q.s. Benzoic acid has been valued for many years on account of its stimulant and expectorant properties, and its combination with codeine, cocaine, menthol, ipecacuanha, and red gum in "Tabloid" Benzoic Acid Compound offers a convenient, portable and agreeable method of administration in relaxed and irritable sore throat.

"Tabloid" Brand Beta-Naphthol, gr. 3.—Beta-naphthol is said to be serviceable in cases of gastric fermentation, particularly when there is dilatation of the stomach. In diarrhœa and dysentery it has been found of much service, and the abdominal symptoms of typhoid fever are held to be, in many cases, much ameliorated by its use, with the subsequent improvement of the constitutional symptoms. Epidemic influenza is also said to be favourably affected by its use.

BIRTHS, MARRIAGE AND DEATHS.

BIRTHS.

DOOLAN.—On the 27th May, 1901, at Young, N.S.W., the wife of D. Doolan, L.R.C.P., L.R.C.S., of a daughter.

HENRY.—On the 2nd June, at Parramatta, N.S.W., the wife of A. G. Henry, M.B., Ch.M., of a son.

RUTHERFORD.—On the 14th May, at Casino, N.S.W., the wife of Dr. A. H. Rutherford, of a son.

MARRIAGE.

WEST-JONES.—On the 27th April, at St. John's, Ashfield, N.S.W., by the Rev. A. Yarnold, assisted by Rev. W. J. Cakebread, B.A., Francis W. West, M.B., Ch.M., son of F. West, Esq., Pilton, Clifton, Queensland, to Adeline, eldest daughter of R. Theo. Jones, M.D., Ashfield.

DEATHS.

CLARK—On the 5th June, at his residence, Ridge-street, North Sydney, Charles Dagnall Clark, M.B., Lond.

FORBES.—On the 5th April, at Nice, William Forbes, M.R.C.S., late of Sale, Gippsland, Vic., aged 69 years.

WELFORD.—On the 29th May, of wounds received at Vlakfontein, South Africa, Surgeon-Captain Francis Welford, Imperial Yeomanry, third son of the late Rev. John Francis Welford, of Sidmouth, Devon. (By cable.)

AUSTRALASIAN MEDICAL GAZETTE.

ORIGINAL ARTICLES.

PRESIDENTIAL ADDRESS.

By Robert Brummitt, M.R.C.S.

Read at the Annual Meeting of the South Australian Branch of the British Medical Association.

I must commence my address with an expression of thanks for the honour of the Presidency of this Branch—an honour that is especially gratifying in view of the succession of able men who have preceded me in this office. The quality of some of their addresses has excited comment far beyond the bounds of the State, and has increased the weight of the penalty claimed from the retiring President of to-day, a penalty which I now propose to share with you.

A review of the year includes some topics of local interest to which I will very briefly refer. First among these is the fact that, after several years of unsuccessful treatment, the Chronic Adelaide Hospital Malady has been so far cured that some members of the old staff have resumed their functions, and that, as a consequence, the Medical School has been fully resuscitated. No useful purpose would be served by a description of the treatment adopted. The attendants who dealt with the case, the patients and the public may be congratulated on the result achieved. I feel quite sure that I voice the feeling of members generally when expressing the earnest desire and hope that the cure will prove complete and permanent.

All the Australian States have been visited by bubonic plague during the year. After some false alarms South Australia has been invaded by the enemy. Happily it was repelled without great difficulty, but there is need for constant vigilance to guard against re-invasion, and especially for sanitary precautions against extension if again it secures a footing on our shores.

A quarantine system is a necessity while serious contagious diseases are rife within two or three weeks' journey of our ports. The arrangements which have legal sanction in this land are, however, old time relics capable of great improvement. Possibly the woes of the "Ormuz" victims may be useful in leading to amendment of the law. Isolation of sufferers and immediate "contacts," with repeated inspection of over-sea passengers who have had no direct communication with the patients, should be sufficient in Australia, as in England, to guard against the admission of the few diseases which make quarantine necessary.

With increased and increasing facility of travel, smallpox will come to our doors from time to time, and may, perchance, be admitted in spite of quarantine and inspection. It has been proved to demonstration many times that a well vaccinated community has little to fear from smallpox, and yet, notwithstanding the clearest possible evidence of the value of vaccination, some of our legislators desire to break down the first line of defence against smallpox. In the last session of Parliament an attack was made on the Vaccination Act now in force in this State with a view to the repeal of its compulsory provisions. A committee of the Branch prepared a clear and forceful statement of the "Case for Vaccination" and a protest against the proposed changes. After passing through the House of Assembly the amending Bill was dropped, but may be re-introduced. It would be well if the statement of the committee as to vaccination were published in the newspapers or otherwise, so as to reach every home in the land. Anti-vaccinators use the press largely and scatter their literature broadcast, and those who have never heard the other side are apt to believe the utterances of agitators. The widespread distribution of a clear statement of the proved results of vaccination cannot fail to be useful, for ignorance is its chief enemy.

Retrospect is the custom of the year. Many addresses have recently been delivered in which the progress of medicine, surgery, and the allied sciences during the past century, has been recited with becoming gratification. I propose to conform to the custom, or to follow the fashion, of the time, but to limit my backward glance to the quarter of a century which elapsed between my departure from London and my return to that city last year, and briefly to compare some of the conditions of the early 'seventies with those of 1900, a period long enough to include changes of the greatest importance and sufficiently brief to be within the recollection of many of our members.

It is difficult for those who have been busily engaged throughout the years, and who have striven to move with the times, to realize how far they have advanced from the starting point until attention is particularly directed to the contrast. From the altitude of the Presidential chair I review the course with some surprise and more satisfaction because of the progress effected.

For purposes of comparison I will refer especially to the scene of my student life—Guy's Hospital. I studied there in the early "Spray Era," when, at an operation, half the dressers were employed with hand spray-producers, surrounding the patient with a haze of carbolic solution. Antiseptic methods were rising in esteem in the hospital, although one or two of the seniors cherished doubts as to the wisdom of the new-fangled and troublesome procedure. A leading surgeon expressed grave doubts in my hearing one day, whether he was justified in continuing antiseptic treatment (by which he meant spray treatment) because of its alleged tendency to favour secondary hæmorrhage.

At that time surgeons were accustomed to wash their hands after an operation, usually not before unless they were obviously dirty; basins and towels were few, and, like the sponges, they went round the ward. If a wound healed by first intention it was shown as a rarity difficult to explain, probably dependent upon the constitution of the patient. The healing of wounds, whether accidental or surgical, was almost always retarded by some septic process. I am inclined to shudder now at the recollection of catheters, dressing instruments and fingers which, while ostensibly clean, must have been frequent sources of peril to the patients.

When I reached my old hospital a few months since, many changes were apparent, structural and personal. New buildings had been erected and new departments established; students of my time were among the senior members of the staff; Röntgen rays illuminated their bone cases, and new instruments and appliances were in evidence almost everywhere. The one great outstanding change was, however, that which depended upon the advance in knowledge and practice of antiseptic or aseptic methods. In the new operating rooms and in some of the wards the floors are cement, well polished, instead of wood; walls, doors, and window frames are polished or glazed, the tables are made of glass or metal in order to afford little refuge for microbes and to allow thorough disinfection; students and visitors are required to wear sterilized over-alls during operations. In the olden time one operating theatre was in use on two afternoons a week, now three rooms are used more or less constantly on four afternoons a week, irrespective of those for gynæcological and ophthalmic work. Following operation cases into the wards, I found that results were immensely better than at the earlier period; septic troubles were rare, recovery was much quicker and ultimate results better. I give my observations at Guy's because of the sharp contrast between the two periods at which I knew that hospital, not because existing arrangements there are ideal, some important changes are still delayed by lack of funds. The operating theatre which most excited my admiration in England was that at Addenbrooke's Hospital, Cambridge. The inner walls are built of large blocks of white marble, highly polished; the floor is a mosaic of marble in cement, perfectly smooth; it is fitted with glass tables and almost every convenience for the surgeon and his assistants. It should be a pleasure to operate, and, in somewhat lesser degree, to be operated upon, with such environments!

While in London I had the pleasure of listening to the recital by Lord Lister, in his "Huxley lecture" of the steps by which he had involved the system of antiseptic surgery. Through many years he had pursued his investigations, observing carefully, experimenting ingeniously, seizing upon facts unnoticed by others and using them as stepping-stones for further advance. He had learned and taught the importance of scrupulous cleanliness in surgery, and had employed antiseptic lotions without understanding that they were antiseptic. The belief was general among chemists that oxygen was the cause of putrefaction. Pasteur then demonstrated the fact that putrefaction, like other true fermentations, is caused by the growth of microbes. The key to the mystery of septicism had been found. Lister recognised and used it. Step by step, through the years he improved on existing methods. As a result we have antiseptic surgery, a system which has revolutionised surgical practice, and made possible many operative proceedings formerly deemed unjustifiable.

Little more than twenty-five years since Mr. Erichsen (afterwards Sir John), expressed the opinion in a public speech that operative surgery had then reached its ultimate limits. "The knife," he said, "had penetrated whereever it could safely go; there were three regions which must be regarded as inaccessible to it—the brain, the lung and the abdomen." I propose to make some reference to the exploits of modern workers in these forbidden regions.

The brain has been successfully invaded by many operators, notably by Ferrier and Victor Horsley, whose work encourages further advance and shows the way. The lung is now well within the sphere of the surgeon, and we may, I think, claim for past and present members of our Branch, positions as pioneers in so far as hydatid of the lung is concerned. The abdomen is so constantly the scene of successful surgery that an effort is required before one can realize how recently it was looked upon as a prohibited arena Lawson Tait's oft-quoted statement that he "would as readily put his hand into the peritoneum as into his trouser's pocket" presumably referred to his own pocket and another person's peritoneum, but it forcibly illustrates the change of view within comparatively few years.

During my student life I saw few abdominal operations, and the results of those I recollect were not very satisfactory; now, so far as my observations have gone, these various proceedings exceed in importance and in number those of any other region of the body. First in order of time, in frequency and in success, stands ovariotomy, in the evolution of which many other surgical measures have been learned. In 1875 Spencer Wells' series of ovariotomies shewed 28 per cent. of fatalities, and were, I believe, the best to that date. His results improved rapidly so that nine years later the deaths were only 11 per cent. Recently, still greater advances have been made, and Handfield Jones states that "In the last 15 years at least half a dozen surgeons in Great Britain, each with cases reckoned by hundreds, can speak of a general mortality in ovariotomy scarcely exceeding four per cent." These gradually increasing successes were speedily followed by other operations to which I can only allude in passing, until now hysterectomy is, in the hands of experienced men, little more fatal than ovariotomy. Among the details of this progress some of the most interesting are the recognition of extra-uterine fœtation as a comparatively common occurrence and its effective treatment by laparotomy.

The gynæcologist has no monopoly of the abdominal cavity. Nothing surgical impressed me more forcibly during my sojourn in London than the number and success of operations on the stomach and intestines, especially those for securing anastomosis between different parts of the alimentary canal for the relief of obstruction. The repair of ruptured stomach and intestines, the removal of gall-stones and the radical cure of hydatids and of appendicitis have been introduced during the period under consideration, and although the radical cure of hernia had a few advocates in the seventies, all the methods now practised are new.

Among the noteworthy discoveries of the period may be mentioned that of X rays, the most important new aid in diagnosis. Röntgen's discovery has given precision to work among bones and foreign bodies embedded in the tissues such as we had never even imagined.

Less than 20 years ago Dr. Meyer, of Copenhagen, discovered the naso-pharyngeal region as the seat of adenoid vegetations. The consequent gain to humanity in the avoidance of deafness, in clearness of articulation and in improved mental and physical development is incalculable, and should tend to improved physique in future generations.

I have, so far, referred particularly to operative surgery, because the changes in that section were very much more conspicuous than those in other departments. Although less obvious to a casual observer, the advances in medicine have been no less important.

First in importance stands the proved relation of micro-organisms to general disease. Twenty-five years since we had little knowledge of vegetable organisms as human tenants. Now we know that the human flora is varied and extensive in health and in disease. From earliest infancy microbes occupy all accessible parts of the body. Miller, of Berlin, has described 30 species found in the mouth of man. Coyon has described 30 species peculiar to the stomach; probably these guests are never all present at one time, many of them often are, and it is estimated that there are from 60 to 70 species of microbes in the flora of a healthy person, comparatively harmless, and some of them, perhaps, beneficial to their host. Among these uninvited guests, strangers of ill-repute often find a place, and are destroyed in great numbers before much harm has been wrought. Sometimes, however, they establish themselves in the tissues and give rise to trouble. At least a score of diseases, including some of the most serious we have to deal with are now attributed to the agency of these bacteria, and although it is possible that further investigation may lead to a modification of our views with regard to some of them, it is quite safe to assert that tuberculosis in its protean forms, diphtheria, typhoid fever, cholera, plague, and a number of other diseases which have been scourges of humanity, are definitely the results of the action of micro-organisms. I state these elemental facts because they were absolutely unknown at the commencement of my professional life, and because the study of the characters of these bacteria has led to great advances in treatment. Diphtheria has lost some of its terrors since, with the recognition of its bacterial origin, antitoxin has been produced as a remedy. Dr. Turner, of Brisbane, read a paper at the last Intercolonial Medical Congress, in which he showed that the death rate in New South Wales, Victoria, and Queensland in the four years preceding the introduction of antitoxin was 44·4 per 100,000 of the mean population, while in the four years after its introduction the rate was only 18·7 per 100,000. On a population of nearly 3,000,000 this represents a saving of about 3,000 lives. Doubtless other influences have contributed to this gain, but Australian experience leads us to give antitoxin much of the credit. All the statistics I recollect indicate that the mortality from diphtheria has been much diminished when serum has been used.

The antitoxins of streptococcus and tetanus have been used with a measure of success. It is reasonable to expect further advance in this field as a result of the work now being done among zymotic diseases.

The published results of inoculation for typhoid fever are very conflicting. In a recent *British Medical Journal* Dr. Wright summarised the results observed among British troops in Egypt and Cyprus in 1900, claiming "a nineteen-fold reduction in the number of attacks of enteric fever and a three-fold reduction in the number of deaths from that disease among the inoculated." Other reports have been less satisfactory, but a large proportion of observers consider the practice helpful when serious risks of contracting the disease have to be faced, useful in warding off the disease and in modifying it if contracted. Inoculation seems to have been established as a satisfactory preventive measure against cholera and plague.

Allied to these remedies is the Hydrophobia serum, with which the name of Pasteur will always be associated. Happily rabies has never been observed in Australia. Those who have watched such cases in the Old World are best able to appreciate the value of the discovery by which the terrors of hydrophobia have been removed or very much lessened.

Tuberculosis is now, as in 1875, the commonest cause of death, but its victims are gradually becoming less numerous. We know its cause and have made great advances in treatment. Although tuberculin has been disappointing in the treatment of consumption, humanity owes an immense debt to Koch for his discovery of bacillus tuberculosis. The proof of the infective character of phthisis pulmonalis has already led to great modification of methods. The proved curability of the disease in many instances has given the incipient consumptive a new and exhilarating atmosphere; instead of mentally condemning him to death, we are able to tell him how to get well, and in a certain or uncertain proportion of cases he may do so.

The open-air treatment of consumption has been generally accepted as the best mode of dealing with that disease. Fresh air, sunlight, and good food are the essentials, and it is deplorable that with these remedies in such abundance in this land, 298 persons died of phthisis in South Australia last year. Careful supervision of the patient is necessary as to rest, exercise, and other details, to secure which Sanatorium treatment, if not essential, is now considered most valuable. I have compared reports of many Sanatoria, and find that their published results vary very widely. Nordrach claims 30 per cent. cured and 65 per cent. improved. Of 200 patients treated at Goerbersdorf in 1896, 40 per cent. were at work in 1900. It is needless to quote more figures, new ones appear almost every week. If 20 or even 10 per cent. of our consumptives can be cured absolutely, and a larger proportion may derive benefit from Sanatorium treatment, we have good reason to recommend that method. All the evidence goes to prove that the earlier a consumptive enters a Sanatorium the greater will be his chance of being cured and the shorter his course of treatment.

Among the great discoveries of the past 25 years a leading place must be assigned to the proof of the relation between mosquitoes and malaria. The possible agency of "swarms of minute insects rising out of the marshes" in communicating ague was discussed nearly 200 years since, but received little attention, and the suggestion appears to have been forgotten until the last few years. It is interesting to see how nearly the truth has been reached in the past without being fully grasped. Sir Thomas Watson quoted in his lectures a statement that "by surrounding the head with a gauze veil the action of malaria was prevented," and that, so protected, "it was possible even to sleep in the most pernicious parts of Italy without hazard of fever." To Ross, Manson, and other workers we are indebted for the proof, which appears to be absolute, that certain species of mosquito are the alternative hosts of the parasites of malaria and of yellow fever. These discoveries open up a vast field for improvement in health conditions and, although the stamping out of malaria is still very remote, it should be possible in some districts to banish the disease entirely, and in others, by prophylaxis, to make life safe and tolerable where in earlier times it has been found impossible to live and work at all. Malaria is but an exotic in South Australia proper, only three deaths have been registered in 10 years under the heading "ague, or intermittent fever." Probably in those instances the disease had been contracted elsewhere. I recollect only one case of ague of local origin in my practice here, that came from Port Pirie, and was a genuine intermittent fever—a tertian—similar to cases in the fens of England, and similarly amenable to treatment by quinine.

Our *Materia Medica* is widely different from that in use a quarter of a century ago. Among other valuable additions to our Pharmacopœia I merely name the long series of coal tar derivatives as being, perhaps, the most important, but will linger a minute to speak of "Animal Therapeutics," a section in which new principles of action as well as new material have been introduced. The use of animals or portions of animals in the concoction of remedies is still common among Orientals. Our forefathers used such material in the marvellous and often disgusting compounds of former times; the practice has not quite died out, for only this week I have learned of a lady in Adelaide taking two earth worms to cure jaundice! Less than 10 years ago the discovery was made that deficiency in certain glands might be compensated by the administration of corresponding glands from lower animals. The most conspicuous examples of such medication is found in the treatment of myxœdema by thyroid glands of sheep. I know nothing more striking in medicine than the effect of thyroid on a severe case of myxœdema. Another remedy of this class, supra renal medulla, has quite recently been highly commended by Professor Schafer as possessing remarkable power in causing uterine contraction, as a styptic and as a heart tonic.

In this very hasty sketch of a few of the advances of the period under review, I have, so far, used only rosy tints; darker ones must be employed to give truth to my picture. Some such shades are supplied by the statistics of mental disease. Dr. Cleland has kindly given me figures relating to the Lunatic Asylums in South Australia, from which I learn that between 1877 and 1899 the proportion of asylum inmates had increased by about 25 per cent. On the other hand, the proportion of admissions has slightly decreased during the last few years. It is a sombre fact that in this comparatively small community about a thousand of our fellows occupy hospitals for the insane.

The gloomiest part of our picture is that which relates to cancer, collectively the most hideous and painful disease we have to combat. These dark shades are especially so in the light of figures which prove that the deaths from this cause have increased year by year until in 1900 they attained the greatest number and the highest proportion ever recorded for South Australia. Similar increases are shown for all the Australian States and for nearly all lands in which records are kept. It is curious that in Victoria the death rate for cancer is nearly 50 per cent. higher than in this State, and that in England it is much higher still. It is possible that some apparent increase may depend upon greater accuracy of diagnosis than in former years, and it is certain that a larger proportion of the population attain the age at which cancer is likely to occur, but these considerations cannot fully explain the steady increase of the disease in almost, if not quite, every civilized land. Many earnest workers are engaged in attempts to solve the cancer problem, better equipped than were any of their predecessors; wide divergence of opinion among them may perhaps increase the probability of ultimate success. The parasitic theory is attractive; so many diseases have been explained by it that we are prepared to bring others into the group. It would be premature yet to encourage dreams of an antitoxin that would charm away the suspicious lumps of our patients as we have seen the symptoms of larnygeal diphtheria banished by an injection or two of antitoxin! Such dreams may never be realised, but if not the scope of enquiry need not be limited by our thought. Ten years ago mosquitoes and malaria were only associated in our minds geographically. Only about five years have passed since an incredulous world first read of the discovery of Röntgen rays and of their properties. Who can doubt that in the secret places of nature many other discoveries await the patient search of the worker, or that among them is the explanation of cancer, with the key to its relief? For the present we have no medicinal cure for cancer, and the rule remains, as 25 years ago, which prescribes to the surgeon "the most complete extirpation of the tumour at the earliest possible period of its existence."

The one brighter spot in this gloom is the improved prospect of help by operation. All operative proceedings are more satisfactory than they were twenty-five years ago; aseptic methods, perhaps greater thoroughness in removing malignant growths and the practice of clearing out associated glands with the tumours, where possible, have jointly led to improved results. One of the surgical surprises of the last five or six years has been the strikingly good result of early removal of the uterus for cancer. The latest figures I have were given at the Congress of the German Surgical Society held at Berlin in April of this year. Dr. Schuchardt, of Stettin, there stated that in early cases he had cured (that is, no recurrence), in 88 per cent., and in later cases. which must, of course, have been comparatively early, of 37 per cent. Other gynæcologists have published similarly encouraging reports. The greatest practical difficulty now is that we do not see the patient early enough, or that, seeing her, we fail to diagnose malignancy until the incipient stage has passed. The greatest enemy of the person afflicted with cancer is, still, the friend or the charlatan who persuades him to try this or that elixir of life before consenting to operation.

The question may be asked, "Is the Community any better for the advances you record?" A partial answer to that question has been supplied by the reports of the Registrar-General of Births, Deaths, and Marriages. In 1875 typhoid fever slew 1 in 2,210 of the population of South Australia, in 1900 only 1 in 6,205. Diphtheria in 1875 killed 1 in 2,808, and last year only 1 in 11,054. Phthisis was responsible in 1875 for the death of one person in every 999 of the population, last year the proportion had been reduced to 1 in 1186. After allowing for increase of population the typhoid fatalities last year were little more than a third of those for 1875, while the risks from diphtheria have been reduced to about a fourth during the same period.

In childbirth the fatalities were in 1875 in the proportion of 1 in 137 of the total births, last year the proportion had improved to 1 in 203 births. Unhappily the deaths from cancer have increased from 1 in 4,421 in 1875 to 1 in 1,685 last year. The number for the State in 1900 was 210.

The reports of the Registrar-General show a death rate for 1875 of 20·03 per 1,000, and for 1900 of 10·67 per 1,000 of the mean population. The rate for 1875 was abnormal; measles, scarlatina and other diseases not referred to in this address were unusually rife that year. I have therefore taken the average death rate for the ten years 1866 to 1875, which was 15·95. The reduction from about 16 to 10·67 per 1,000 is sufficiently striking to show that the community is very much better for the advances of recent years.

What of the future? However interesting retrospect may be, a glance into the future would be much more so We speak of preventable diseases and wonder when they will all be prevented; we tell of successes achieved and the question arises, What more may we anticipate? Hosea Biglow wrote that "It is not safe to prophecy unless you know"; Sir John Erichsen's surgical forecast does not encourage essays in prophecy; still, in spite of precept and example, I venture to look into the future and see that it is full of hope of further progress.

The triumphs of antiseptics and anæsthetics during the past quarter of a century have been such that practically no organ or part of the body is now outside the surgeon's sphere Surgically, I see no unexplored regions to be conquered, but endless opportunities remain for ingenuity and improvement of detail, all tending to length of life and increase of comfort.

The lessening of maternal risks has been very marked during the past quarter of a century, still there is abundant room for advance. There will always be risks for mothers, but one death in 203 cases, the rate for South Australia last year, is much too high. Whatever other advantages may accrue from the establishment of the Queen Victoria Maternity Home, it will aid in the education of nurses and mothers. That education is already going on continuously and we are the instructors. It is quite safe to predict that in the new century the deaths will be much fewer, proportionately. than in the last year of the old, when forty-five mothers perished in this State amid the perils of childbirth.

Probably more than half the fifty-seven persons who died from typhoid fever in South Australia last year contracted the disease through the agency of impure water. By either of two means their lives might have been saved—by the use of porcelain candle filters or by systematic boiling of drinking water. The knowledge of these methods is extending, and we may still hope for aid from antitoxin and from general sanitary improvement. By whatever means the number of typhoid cases may be lessened the *foci* of disease will be diminished. I look for progressive diminution in cases of this disease and in consequent fatalities.

If time served I might go through the various zymotic diseases, and attempt to show in detail that as each has apparently lessened in virulence or in frequency, we may anticipate further steady improvement with regard to them. With-diphtheria and scarlatina such decrease may be expected; but measles and whooping-cough are less amenable to control. Now that notification of most of these diseases has been made compulsory. they are less likely to prevail as severe epidemics, and results should improve.

With regard to phthisis, the twenty-five years past have shown a decline of mortality in South Australia of about 20 per cent. That improvement has been effected during a transition period, in which the cause of the disease has been discovered and an effective mode of treatment introduced. It is reasonable to anticipate that with fuller light and improved methods the mortality from consumption will be lessened continuously and rapidly. How many generations will have passed before the final extinction of tuberculosis it would be hazardous to conjecture. The rapidity of the improvement will largely depend upon the education of the people in subjects of which we, as a profession, are head-teachers; subjects such as the value of sunlight and air in dwellings, even at the expense of faded furniture; and the wrong of spitting about paths, tram-cars, and railway carriages.

About cancer I am afraid to say much. The prospect just now is gloomy, but I hope to see preventive or curative measures discovered that will lessen the terrible losses of the present.

In many respects the health outlook is brightening. Increase of one disease has been —and is likely to be—much more than counterbalanced by decrease of others. In the coming time more children will attain maturity, more men and women will grow old. Inasmuch as health tends to happiness, the Australian race of the new century should find that "the lines have fallen to them in pleasant places." They will, doubtless, forget how largely their evolution has been influenced by the work of the medical profession.

I have spoken of "student days" as distinguished from later ones, but have long had a conviction that when a doctor has ceased to be a student his retirement should not be very long delayed. The experience of the years shows the urgent need for us to be ever on the alert for new ideas and new methods while we conserve all that is good in the old. An open mind is, for us, a necessity of useful existence.

The successes of the past have greatly lessened the amount of work within our sphere. If my forecast be correct, that diminution will be continued, our work lessens while our numbers increase. There will always be room in our ranks for the eminently suitable, but the time has passed, if it ever existed, when the practice of medicine could be looked upon as a highly remunerative one for its average practitioners.

A long, arduous and costly road is that which leads to the portals of the medical profession, and the student who has looked upon those portals as his goal will find, when they have been passed, that professional success is still remote. Having passed through the narrow gate by examinations, he will probably see another goal ahead. If that goal be wealth he will scarcely reach it, commerce would have given him a better chance; if social distinction or fame, some other course might have been better; but if, with a keen and sustained interest in scientific work he combines true sympathy with the sufferer, energy of character, and facility of resource, he will probably achieve a real success, and find that the ministry of health is a good vocation.

APPENDICITIS FROM A SURGEON'S POINT OF VIEW.

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I SHOULD certainly not have ventured to bring up the subject of appendicitis again, were it not for the fact that although very much has been said about it, there is still great difference of opinion as to treatment. The importance of the subject from this point of view is undeniable, both because of the frequency with which one meets cases of appendix trouble, and the serious bearing both as to life and health.

When confronted with an undoubted case of appendicitis the question of operative interference always arises, and has to be answered, "Yes" or "No." If the former, then the further question of "When" has to be met.

Generally speaking, I believe that those of us who have, during the past few years, seen many instances of appendicitis, have more or less altered our attitude with regard to operative treatment. Personally, I used to roughly formulate my own position by saying that if I had one attack of appendicitis, and recovered from it, I would wait for a second before being operated upon, but certainly not for a third attack.

My experience more recently, and especially during the past year, has forced me to reconsider this conclusion. Before trying to settle this question of "When to operate," we might very briefly consider the subject from its clinical aspect as a whole.

From a clinical point of view, we may roughly divide cases of appendicitis into two chief groups.

(1) *The recurring type;* in which there are all the usual signs and symptoms of pain, temperature, muscular guard tension, and possibly a definite swelling localized in the right iliac region. After running a course lasting from two to ten or fourteen days, the attack subsides, and the patient is apparently well until the next attack, which may occur in a few weeks, months, or even at a longer interval. In such cases, one sees patients who have had any number of attacks, from two to ten or more. Usually, as time goes on, the interval is less free from discomfort or even pain. Moreover, in any one attack pus may form, and so decide the question of operation.

(2) *The acute perforating type*—fortunately far less frequent than the "recurring type." Here we have usually a sudden onset, and evidence, more or less definite, that a serious abdominal catastrophe has taken place. This, however, by no means always holds good. The symptoms at the beginning of such an attack may be slight, but they rapidly become more severe.

(3) There is a third group of cases, in which both the pathological conditions and the clinical signs and symptoms differ greatly, especially in intensity, from the instances just given. The pain is less localized, is more diffused over the whole abdomen; there is little, if any rise of temperature, and probably no local (iliac) swelling. The attacks are usually recurrent. These are the instances of so-called appendicular colic.

The Pathology is, of course, of the utmost importance. Without going into detail, there are one or two points I should like to touch upon.

(1) In the veriform appendix, we have to deal with a "terminal circulation," both as regards the blood and lymph.

(2) There is a great amount of lymphoid tissue in the appendix, and this tissue is apparently especially liable to invasion by pathogenic organisms.

(3) The venous blood returning from the appendix goes into the portal circulation. Hence a septic venous thrombosis would be liable to cause the occurrence of septic emboli in the liver. As a matter of fact, however, portal infection in even acute perforating appendicitis is unusual.

There are many factors which help to determine both the type and the severity of the attack; such as the individual tissue resistance, the particular organism, the route of invasion, *i.e.*, whether chiefly along the lymphatics, or along the veins.

I have mentioned these various points, because a due recognition and consideration of them helps us in answering the inevitable question which arises in every case of appendicitis: "Ought we to operate, or not?" We all admit that if it is possible, with safety to the patient, to avoid an operation we should do so. The difficulty is to know at the onset whether we have to deal with a comparatively slight attack of the "recurring" type, or the commencement of an "acute perforating" attack in which delay will probably mean death to the patient, whereas *prompt* operative interference results in the majority of instances in recovery.

Assuming, for the sake of argument, that operation has been decided upon; What is the prognosis? In all cases of the "recurring" type, the outlook is good. Fatal results are very rare, and—a most important fact—with the removal of the damaged appendix, the danger of future attacks is gone. This is very well illustrated by the case recorded by Dr. Mills at the end of his paper read at the last meeting of the Branch. In this case the first attack was slight, and recovery easy, yet within two months a second attack occurred. The appendix was perforated by a fæcal concretion and although the operation was done twenty hours from the onset of symptoms, there was free purulent fluid in the abdominal cavity. The patient recovered, but the risk was very great. Had the appendix been removed in the quiet interval following the first attack, this great risk would have been entirely avoided

Within the past ten months I have been called upon to operate upon five cases in which there was an acute perforation of the appendix; two were females, three males. In each there was a history, suggesting a previous attack involving the appendix—one of the five was the case referred to by Dr. Mills. In each instance had the appendix been removed after the first attack, no perforation would have occurred, and, judging by experience each patient would probably have made a good recovery. Instead of this four of the five patients recovered, having passed through great peril, but the fifth, a strong, healthy man, the bread-winner for a family, died. His was a case of acute perforation of the appendix near the colon, by a fæcal concretion. The operation was done within thirty-six hours after the onset of symptoms, and for the first three days he did well, temperature not rising above 99° F. and the general condition being good. There was no extension of peritonitis. On the fourth day the temperature began to rise and he showed signs of portal infection and died of portal pyæmia. This ought not to have happened.

These are, shortly, the main reasons which have led me to reconsider my position with regard to operation in cases of appendicitis. Although I would not *urge* removal of the appendix in every case after the first attack, I consider that such a procedure is perfectly justifiable, and, moreover, that lives would be saved. Certainly after a second attack I would urge removal.

Against this will be pointed out that there are many cases of undoubted appendicitis, in which the patient recovers apparently completely, and no second attack occurs. Why, therefore, subject the patient to the risk of an operation?

As I have said before, the results of removal of a damaged appendix in the quiet interval succeeding an attack are so good, and the risk to life so small, that such a procedure is justifiable, in view of the fact that the next attack, if it comes, may mean perforation.

As bearing on this there is an important point not, I think, generally sufficiently recognised, viz., that in almost all cases of perforating appendicitis there has been a preliminary and warning attack, often very slight, and in some cases separated by so long an interval that the patient has been regarded as safe from recurring attacks.

To take an instance:—One of the five patients already referred to was a healthy man of thirty years. Five years before the perforation took place he had passed through an attack which his medical attendant diagnosed as "peritonitis," quite correctly, but the diagnosis did not go far enough; for at the time of operation there was abundant evidence that the *cause* of the "peritonitis" was to be found in a pathological condition of the appendix. In this case, had the appendix been removed after the first attack, he would have been saved the great risk of the perforation, which subsequently happened.

In nearly all the cases of acute perforating appendicitis which I have seen, there has been evidence of a foreign body, usually a fæcal concretion in the appendix. This is generally not the case in those fortunately more frequent instances of the "recurring" type. But how are we to tell with which we are dealing? I know of no way except by operation. It is either that or take the risk of perforation later.

Then, again, in the "recurring" type, the pathology of which differs considerably from those in which the appendix contains a concretion, each attack means more adhesions, more damage to the appendix, lessened tissue resistance, and therefore greater probability of the further invasion of the lymph-spaces by organisms, followed by the formation of pus sooner or later; or, if this does not happen, there may be, and often is, so much discomfort and interference with health that, finally, after many attacks, removal of the appendix is decided upon.

Then the difficulties begin. The adhesions are old and dense, and the operation in some cases is most tedious. I have heard some described as "impossible" cases. So far I have not met an "impossible" case. A training in dealing with the dense adhesions found in the pelvis as the result of Fallopian tube trouble, makes one feel that very few adhesions are really "impossible."

The point, however, is that these cases should never be allowed to arrive at such a state.

A few words of warning against *incomplete* operative treatment. In some cases where an appendiceal abscess has formed, limited by adhesions of omentum and gut, the operator opens and drains it, and as the appendix does not present itself, or is not readily found, he very rightly refrains from further disturbance of the limiting adhesions. So far this is good surgery, for with a virulently infective condition, the extensive separation of adhesions, and possible contamination of the general peritoneal cavity is to be avoided.

It is better to drain and irrigate the abscess cavity, and at a later date, say in ten days or a fortnight, before the adhesions have had time to become dense, and when the parts involved are surgically clean, look for and remove the damaged appendix. This will prevent recurring attacks, and means really "a cure" for the patient.

I am very sceptical as to the "sloughing away" of the appendix, of which I have heard surgeons speak. At all events enough of it remains to cause future trouble; or the actual fæcal concretion which caused the perforation may be left lying amongst the adhesions after the abscess cavity has been emptied.

I saw an instance of this a few months ago. A man, aged about forty years, had a perforation of the appendix. Fortunately, adhesions, the result of a previous attack, existed, which in his case limited the suppuration and prevented a general peritonitis.

On making the incision a most horribly fœtid abscess cavity was opened, and as the appendix could only have been reached by disturbing and breaking through the existing adhesions it was left. The cavity was drained and irrigated until at the end of a fortnight, the temperature having been normal for ten days, and the discharge having almost ceased, the second operation for the removal of the appendix was done. In addition to the perforated appendix, a fæcal concretion the size of one's little finger nail was found lying loose.

It will be gathered from what I have said that I incline to earlier surgical interference in cases of appendicitis, than has been my practice in the past. At the same time it is most difficult, in fact impossible to formulate any definite rule for our guidance. Each individual instance must be judged upon its merits. Unless, indeed, we say that as a general rule the appendix should be removed in the "quiet interval" after every undoubted first attack of appendicitis

(*For discussion on this paper see page 298.*)

NOTES OF A CASE OF A PIECE OF EGGSHELL LODGED IN THE LARYNX OF A CHILD AGED 11 MONTHS.

By H. Swift, M.D. Cantab., Adelaide, S.A.

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Irene F——, *æt.* 11 months, was admitted into the Children's Hospital on March 1st, 1901. Five weeks before admission, whilst sitting on the mother's lap at the breakfast table, it put a piece of eggshell into its mouth. It was suddenly seized with a "choking" fit. The mother made the child sick by tickling the fauces, and noticed that the vomit was slightly streaked with blood. Before this attack, for two or three days the child did not seem quite well, but there was no difficulty in breathing and no cough. Ever since the attack there has been noisy breathing with indrawing of chest, continual cough of a croupy character, and at first loud "like a trumpet." She has lost her voice; on crying there is only a slight noise.

Past History.—Child has always been well and never had croup.

On admission.—Temperature 100°. Respiration is stridulous with a good deal of indrawing of lower sternum, and a slight amount in intercostal spaces on both sides. Cough of croupy nature; when crying, only a slight sound. Auscultation and percussion of chest indicate very little change from normal, except respiration; murmur is harsher; no inequality in two sides. There is no difficulty in swallowing. An attempt was made to examine the region of trachea and larynx with the X rays, but it was a failure.

On March 4th, tracheotomy was performed under chloroform. The child had a very short fat neck, and there were more veins than usual in the way. I went through the two upper rings of the trachea and then through the cricoid cartilage. Upon separating the edges I at once saw a piece of eggshell protruding between the cords. I seized this at once, but all too firmly, as only a piece came away. I again inserted a pair of small curved forceps, felt the foreign body, very gently grasped it, and with very delicate traction drew out the piece of eggshell, which measured about half-an-inch by two-thirds of an inch. The eggshell was lying in a vertical and antero-posterior position with the lower edge presenting between the cords. There was a fracture dividing about one-fourth from the other three-fourths, but the parts were not separated, being held together by the vitelline membrane (?) the smaller part was bent on the larger. This fracture and bending may have and probably was produced during delivery.

After the removal of the larger piece I was uncertain as to whether the whole had come away, but as I was unable to feel any more either with forceps or probe, I decided to close the wound. I passed sutures through the divided cartilages and tentatively closed the opening into the trachea, and as the child cried lustily with very good phonation, I tied the sutures and placed some more through the membranes, but as there were one or two minute points through which the air still bubbled, I left one stitch in the skin wound untied for a few hours. This was tied on the second day, as during the first day a little air could be heard whistling through the wound.

The recovery was uninterrupted.

On April 18th the mother wrote, saying the child was fat and well, but thought its voice was a little harsher than it used to be. The removal of a foreign body from the air passages is always an exciting experience. but when the foreign body is of such a friable and brittle character as an egg-shell, the difficulties are considerably enhanced. In another case that I brought under your notice, I saw the foreign body for an instant during the operation, but was unable to secure it; so on this occasion I was on the *qui vive* as soon as the trachea was opened, and grabbed the foreign body with too much energy.

As to the position, I suppose it was just too large to go through the cords, but big enough to be caught in the mucus membrane. There was very little obstruction to the passage of air, except when any spasm was set up; on the other hand, the shell being so thin, very little resistance was offered to the air so as to move it either up or down. I can find no record of any similar case.

HEMIANOPSIA, WITH REFERENCE TO THE LOCALISATION OF CEREBRAL DISEASES.

By J. Lockhart Gibson, M.D. Edin., M.R.C.S. Eng., Brisbane.

The data which have accumulated during the last ten years have thrown so much interesting light upon the value of hemianopsia in the localisation of intracranial disease, that the subject suggested itself to me as one which would be of interest to us all. Notes of four cases which I propose to give as a short separate paper at the end of this one will serve as a post text. The diagrams I have brought will, I hope, be a help to you as they certainly will to me. Lesions which we have to consider include those of the optic commissure or chiasm of the optic tracts, basal ganglia, optic radiations and visual cortex. It may be well at the start to remind ourselves that the fibres of each optic tract supply one half of each retina, viz., that the outer half of the fibres composing each tract pass forward in the optic nerve of the same side to expand into the outer half of the retina of the corresponding eye; while the inner half of the fibres composing each tract enter the optic commissure and cross over to pass in the optic nerve of the other side to expand into the inner half of its corresponding retina. It follows, therefore, that the fibres of the right optic tract supply the right halves of the two retinæ, and receive impressions from the objects in the left halves of the visual fields; whereas the left tract supplies the left halves of the two retinæ and receives impressions from objects in the right halves of the visual fields; and it further follows that while each optic tract contains fibres belonging to half of each eye, the two halves represented in each tract are corresponding halves Section, therefore, of the right optic tract would result in loss of the left half of each field or left homonymous hemianopsia; and section of the left optic tract would result in the loss of the right half of each field or "right homonymous hemianopsia." Section of the commissure would result in the loss of each temporal field = "bitemporal hemianopsia," (a variety of heteronymous hemianopsia).

Section of the outer half of each tract would result in the loss of each nasal field or binasal hemianopsia (or heteronymous nasal hemianopsia).

Homonymous hemianopsia is not uncommon, and can be due to lesions either in the visual path or in the visual cortex. Bitemporal hemianopsia has been recorded about one hundred times, and always as a result of lesion of the optic commissure. Binasal hemianopsia has been recorded about twenty times;[1] it requires two separate symetrical lesions, and has apparently never been observed as a result of cortical lesions. We shall find, also, that in the light of recent research it is possible to have other two varieties of homonymous hemianopsia, viz., inferior and superior. But each involves two separate and symetrical lesions.

The decussation of the optic nerves as described applies to man. Its amount and character differs in different animal types, depending upon the extent of their binocular vision, which again depends upon the position of the eyes in the head. In fish the eyes are laterally placed, no binocular vision is possible, there are no corresponding halves of the two retinæ to be represented in the same tract, and in consequence the decussation of the optic nerves is complete. If we trace the optic tracts backwards to their connection with the basal ganglia and with the cortex, confining our attention to those fibres in the tracts which come from the two retinæ, we find that each tract winds closely round its corresponding *crus cerebri* under cover of the tempero-sphenoidal lobe and divides into three main divisions. One of these is intimately connected with the external geniculate body, another with the pulvinar or posterior part of the optic thalamus, and the third with the anterior corpus quadrigeminum.

Descending and ascending degeneration, the result of disease and experiment, have enabled the fibres in the optic nerves to be traced into these ganglia, and fibres from the occipital cortex to be traced to them also. From the basal ganglia fibres are continued onwards through the optic radiations to the cerebral cortex, but Henschen has thrown some doubt upon the until lately entertained belief that they pass in the posterior third of the hind limb of the internal capsule to reach the optic radiations, and he appears to incline to the view that the visual path passes from the external geniculate body directly into the optic

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(1) C. A. Viasy, *Ophthalmic Review*, February, 1897.

radiations, *i.e.*, that its fibres pass directly to form the fibres which radiate in the occipital lobe to the visual cortex.

This somewhat hurried tracing backwards of the optic nerve fibres to the occipital cortex clears the way for the consideration of the more important evidence established during the past few years for the more definite location of the visual centre and the more accurate course of the fibres themselves.

Time will quite preclude any reference to-night to derangements of the oculo-motor apparatus. It will be sufficient if we consider what Swanzy, in his monograph in Norris and Oliver's "System of Diseases of the Eye" (vol IV.), calls "the localising derangements of vision, caused by focal brain disease." Swanzy's article is so excellent and exhaustive and so recent (1900), that it is impossible to write a paper such as this without borrowing much from it, and I must confess my indebtedness to him, as in parts I shall follow his arrangement very closely.

We have to consider visual symptoms caused by—

1. Lesion in the occipital cortex.
2. Lesion in the optic radiations.
3. Lesion in the posterior third of the hind limb of the internal capsule.
4. Lesion of the primary optic ganglia.
5. Lesion of the optic tracts.
6. Lesion of the optic commissure.

Lesions cortical and sub-cortical in the occipital lobe may cause hemianopsia, and mind-blindness, amnesic colour-blindness, and visual hallucinations, and when the lesion is on the left side of the brain in a right-handed person, we may have word-blindness, letter-blindness, and visual aphasia. We have to deal chiefly with hemianopsia, word-blindness, and letter-blindness; the loss of memory for colours need take up very little of our time. The occipital lobe appears to be given up to the function of vision. Different parts of it would appear, to use Swanzy's words, "to be functionally specialised for special use in the processes of seeing and recognising." The actual visual centre or primary visual centre specially concerns us, and the consensus of opinion now places this centre on the internal or mesial aspect of the occipital lobe, instead of, as Ferrier taught, in the neighbourhood of the angular gyrus. Seguin,[2] Hun,[3] Haab,[4] Féré,[5] were amongst the first to put forward the present view.

But the more recent and elaborate researches of Henschen[6] of Upsala, of Vialet[7] of Paris, and of Flechsig[8] of Leipzig, have given us more accurate data. Henschen, for instance, confines the cortical visual centre or primary visual centre to the region immediately adjoining the middle part of the calcarine fissure. Vialet considers the visual centre limited only by the whole mesial surface of the occipital lobe, while Flechsig considers that at least the cuneus and the lingual lobe are included in it, but agrees with Henschen that the calcarine fissure corresponds specially with the macula lutea Vialet records three cases of hemianopsia in support of his views but they rather strengthen than weaken Henschen's restrictions of the primary visual centre, as in each of the three the middle part of the calcarine fissure was diseased. Henschen indeed considers that his evidence still further defines the primary visual area, and believes that the upper or cuneic lip of the calcarine fissure represents the homonymous dorsal retinal quadrants, while the lower or lingual lip represents the homonymous ventral quadrants of the retinæ. The macular region, he believes, is represented in the floor of the calcarine fissure. Flechsig's opinion is based on investigations which led to his important discovery of the gradual myelisation of the nerve-fibres in the white substance of the brain of the fœtus and new-born infant. Up to the fifth month of intrauterine life the cerebral nerve-fibres consist only of axis cylinders. They then commence, he says, in regular order to assume medullary sheaths, and certain bundles of fibres having certain anatomical connections, and presumably, therefore, certain physiological functions assume their medullary sheaths at one period, while other bundles of fibres having different anatomical connections and probably, therefore, different physiological functions assume their sheaths at another period. This method of investigation has enabled him to map out many of the most important paths of the brain.

Henschen's refinements are, perhaps, more interesting than of great practical importance, and to know that the primary visual centre "is round about the calcarine fissure, that it is on the mesial aspect of the occipital lobe and does not occupy the whole lobe or the outer surface of the lobe," is, according to Swanzy, at present sufficient for clinical purposes. Still, a few

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(2) Journal of Nervous and Mental Diseases, 1886.

(3) American Journal of Medical Sciences. January, 1887.

(4) Klinische Monatsblätter für Augenheilkunde, 1882, s. 149.

(5) Archives de Neurologie, 1885, p. 229.

(6) Klinische und Anatomische Beiträge zur Pathologie des Gehirns i. und ii. 1890; iii. 1892, 1894.

(7) Les centre cérébraux de la vision Paris 1893.

(8) Neurologisches Centralblat 1895 s iii. 8 und 1896 s 2. Localisation der Geistigen Vorgänge. Leipzig. 1896. Gehirn und Seele. Leipzig, 1896.

recently reported cases suggest the practical importance of Henschen's view. The remarkable case recorded in the *Société Biologie*, Paris, December, 1893, by Déjerine and Vialet, and recounted by Swanzy, is worthy of special mention here: "The man became suddenly blind of both eyes without apoplectic seizure or loss of consciousness. The fundi oculorum and refracting media were normal, and the diagnosis of cortical blindness from bilateral lesion of the occipital lobe was made. The pupil reflexes to light and convergence remained healthy. The patient lived for a long time afterwards, and ultimately died of pneumonia. The *post-mortem* examination confirmed the diagnosis of the cause of blindness. On the right side the lesion occupied the cuneus and the lingual and inferior occipito-temporal lobes, and on the left side the lingual and inferior occipito-temporal lobes. Here, again, as well as can be learned, the calcarine fissure is involved in the lesion on each side." Cases of hemianopsia due to lesions of the cortex pure and simple are diagnosed by the absence of all other signs except the absence of the corresponding halves of the visual fields. As Michel, in his "*Lehebuch der Augenheilkunde*" pointed out, the one positive sign of this cortical lesion is negative vision. The patient sees "nothing" in the defective part of the field; he is, indeed, unconscious of the fact that he has lost the visual half fields in question, if, on the other hand, the lesion causing the hemianopsia be in the visual path, a subjective sensation of darkness or of blackness is referred to the defective halves of the field of vision, which may lead the patient to call the medical man's attention to his defect. Negative vision, however, appears to be met with at times, even when the lesion is in the visual path and not in the cortex, and Bleuler(9) and Wilfrid Harris(10) have each recorded such a case. Several cases of double cortical blindness similar to Déjerine and Vialet's have been recorded, though only in it and in a case of Bouveret was it possible to confirm the diagnosis by a *post-mortem.* Three such cases retained a small central portion of each visual field, corresponding to the macula lutea. Partial lesion of the visual centres or even of the visual path may cause only partial homonymous defects of the visual fields Cortical hemianopsia also may be relative, *i.e*, the colour sense only in the half field may be destroyed (hemiachromatopsia), leaving the form sense and light sense intact, or the colour sense and form sense may be destroyed, leaving the light sense intact. Recorded cases render, says Swanzy, the theory plausible "that in the cortex the centre for the colour sense is differentiated from the centres for the form and light senses, and also that the different primary colours have different cells set apart for their use." He mentions that Henschen records a case of cortical hemianopic violet-blindness, the power of distinguishing all other colours remaining good in the same half-fields. This theory, supported by Henschen's case and by analogy with the recently recorded cases of letter-blindness without word-blindness, to which I shall refer later, appears to me so plausible that even cases of hemiachromatopsia due to lesions of the optic tract, and occurring without loss of form sense or of light sense, do not exclude the possibility of its being ultimately possible to accept it. The fact, indeed, that a tract lesion may produce colour-blindness in a half-field without loss of light sense or form sense proves that the lesion of the tract can only have been partial, and suggests the explanation that it was defective conductive power in the nerve which caused the colour sense to fail for want of sufficient intensity of stimulation to the centre. Just as the central colour sense is apt to fail first in cases of toxic ambliopia, the conducting power of the nerve fibres being diminished, the intensity of stimulation to the light centre might be supposed to be insufficient to admit of an overflow or projection of stimulation from the primary visual centre to a secondary visual centre for colour.

Ward A. Holden and K. K. Bosse, at the end of an elaborate paper on "The order of development of colour perception and of colour preference in a child," published in the "Archives of Ophthalmia, May, 1900," make these somewhat significant remarks, "Not infrequently we found a disposition to match the worsteds according to luminosity rather than hue," again, "when the child is five or six years old, this disposition to match colours according to luminosity is lost, and the matching even of tints and shades is done usually with considerable accuracy, although there may be a tendency to confound blue and violet, which is outgrown only later." The recently recorded cases of letter without word-blindness must revolutionise the theories of cortical visual perception. They entirely exclude the possibility of accepting either of the two more prominent theories put forward for word-blindness without letter-blindness In word-blindness, which is common in right-sided hemianopsia, the power of distinguishing letters is, as a rule, retained and the patient can, as a rule, write, often very well, but cannot read his own writing, not even his own signature. Pure word-blindness, called so by Déjerine,[11] has been called "Sub-cortical alexia" by Wernicke[12] to indicate that the condition is due to a sub-cortical lesion involving association fibres, *i.e.*, the fibres passing between the visual word memory-centre, and the speech-centre. The sight of the word fails to awaken the memory of its speech-sound, and it cannot be recognised, although it can be written with or without dictation or spoken. This explanation requires now some amplification.

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(9) Archiv. für Psychiatrie und Nerven-krankheiten, xxv., s. 32.
(10) Brain ;-part lxxix., 1897.

Swanzy, while recognising of course, the existence of word-blindness without letter-blindness, does not, in his article, recognise letter-blindness without word-blindness, and gives consequently as the "most obvious explanation of the former; that the lesion of the path between the visual word memory-centre and the auditory word memory-centre or speech-centre is only a partial one, admitting the simple process of naming or recognising letters, but not of the more complicated process involved in the recognition of words, for the reading of entire words demands," he says, "a rapidity and continuity in the recognition of the letters composing them, as also the power of obtaining and retaining clear memory-pictures of those letters, so that no letter may be forgotten before the end of a word is reached. Hence," he says, "for this reading of words, the integrity of the the direct path between the two centres in question is probably of eminent importance, although for the naming of letters its perfect healthiness may not be necessary." In the *Lancet* of March last (1901), is an annotation concerning a case of Dr. Guy Dinsdale's, the patient being a medical man. There was aphasia hemiplegia and letter-blindness. but not word-blindness. He could read well and enjoy reading. He regained the power of writing, but his aphasia and letter-blindness persisted.

The existence of letter-blindness without word-blindness means that in addition to a visual word-memory centre there must be a visual *letter-memory* centre, and the conclusion results that a word comes to be recognised by the visual word-centre, not so much in virtue of the individual letters that compose it, as in virtue of the distinct picture of the word itself impressed upon the visual word-memory centre; and the further conclusion is suggested that closely grouped together in the occipital cortex are separate secondary visual centres for form, words, letters, and possibly colours, as well as centres for more complicated mind pictures, and that these are connected intimately by trans cortical and sub-cortical fibres with the primary visual centre and with each other. Clinical evidence suggests that the primary visual centre and the secondary visual word-memory and visual letter-memory centres are placed near each other on the mesial surface of the occipital lobe, while the visual form and other centres are more probably in the neighbourhood of the angular gyrus, and on the external aspect of the occipital lobe.

The visual word-memory centre and letter-memory centre appear to be confined to the left hemisphere, at least in right-handed persons. Destruction of the cortical visual word-memory centre or visual letter-memory centre respectively would give rise to failure to distinguish words or letters as the case may be. Interruption of the fibres communicating between these centres and the speech centre would have much the same effect. Interruptions between the primary visual centres and the visual word or letter centres respectively would have the effect of producing word-blindness or letter-blindness, but the patient would retain the power of recalling mental pictures of written and printed words which had already been stored up in those centres. The visual word and letter-memory centres being both destroyed, the patient may still be able to speak and write by virtue of stimulation to his speech and writing centres from his auditory word centre and auditory letter centre. And this patient also, though able to write, would be quite unable to read what he himself had written, even his own signature. If he had learnt to read Braille type he would still be able to read it by the sense of touch. To complete this part of the subject it is necessary to refer to what has been called mind-blindness. It can be cortical or transcortical. In cortical mind-blindness the memory pictures of things and people are themselves lost, and cannot be called up in the imagination, because their centres have been destroyed, whereas in transcortical mind-blindness the patient can describe a well-known face, scene or object, but cannot recognise it upon looking at it, because the fibres of communication between the primary visual centre and the visual "mind" centre have been destroyed. By voice, however, if the object be an individual, or by feel if it be inanimate, he can recognise it. The majority of cases of mind-blindness are, according to Swanzy, accompanied by hemianopsia.

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(11) Memoires de la Société de Biologie. Février, 1892.

(12) Lehrbuch der Gehirn krankheiten, iss, 207, 388.

Freund adopts a theory, not, as Swanzy says, universally held, that the visual memory pictures of objects are stored in both hemispheres and he assumes a direct path between the right visual centre and the speech centre in the left hemisphere. Swanzy points out that if the doctrine be true that commissural fibres between the two hemispheres connect only identical regions, a direct path from the right visual centre to the speech centre cannot exist. He admits, however, that Freund's theory may be correct even without a direct path. Cases of word-blindness with hemianopsia due to a lesion in the left visual cortex only, make it impossible to entertain the belief that visual word memories at any rate are, under natural circumstances, stored up in both hemispheres. Whether it is possible for cells in the right visual cortex to take up by education the function of a lost left visual word-memory centre is another matter. That the right primary visual centre must, however, be intimately connected with the secondary visual centres in the left occipital cortex seems to be put beyond question by the existence of cases of right hemianopsia without word-blindness due to a lesion confined to the left visual cortex. It is evident that in such a case the left primary visual centre is destroyed, primary visual perception is possible, therefore, only by means of the right primary visual centre, and as word-blindness does not exist, the secondary visual word centre in the left occipital cortex must receive its impressions through the right primary visual centre, doubtless by fibres passing across the splenium of the corpus callosum. If the lesion were in the left visual path much the same would apply.

The following case, which is not an isolated one and concerning which there is an annotation in the *Lancet* of February 16th, 1901, was reported by Professor Brissand of the Satpêtrière. The patient had word-blindness with right hemianopsia. The question was discussed as to whether the lesion was situated in the neighbourhood of the angular gyrus on the outer aspect of the occipital lobe or on the mesial aspect of the occipital lobe in the calcarine region, and whether it was cortical or subcortical. At the necropsy an old cortical softening was found involving the inferior four-fifths of the cuneus and the whole of the calcarine fissure, as well as almost the whole of the lingual lobule of the left side. There was also a secondary degeneration of the tapetum and of the optic radiations on the same side, but without lesion of the inferior longitudinal fasciculus or parietal cortex or any other subcortical region. The degeneration of the tapetum could be traced into the splenium of the corpus callosum and thence into the right hemisphere where it seemed to terminate in the tapetum and calcarine region of the right side, but without affecting the optic radiations or the white substance subjacent to the calcarine cortex. The man had for some time been unable to read though able to write and then unable to read what he had written. The superior temporal and angular gyri are considered to be auditory word centres, and according to Déjerine and Vialet[13] the word-blindness that is accompanied by disturbances of speech and agraphia depends on lesion of the angular gyrus and gyrus supramarginalis. The intactness of the auditory word centre and neighbouring portion of the cortex in Brissand's case could have sufficiently accounted for the ability to speak and write, while the destruction of the calcarine region or primary cortical visual centre produced hemianopsia and the further destruction of the secondary visual centre or visual word-memory centre probably in the same neighbourhood, prevented the visual recognition of written or printed words.

To refer shortly to what has been called quadrant hemianopsia, Swan. M. Burnett[14] records a case of homonymous defect in the lower quadrants of the left fields. The patient was very conscious of the defect. Burnett concludes that the case furnishes support to Henschen's view that the upper lip of the calcarine fissure represents the upper quadrant of the retina and the lower lip the lower quadrant, and considers the lesion in his case a hæmorrhage into the upper lip of the right calcarine fissure. The case does furnish interesting evidence in favour of Henschen's view of quadrant hemianopsia, but the fact that the patient was so conscious of his defect suggests that the lesion was rather in the visual path than in the visual cortex, and we shall see that Henschen considers that quadrant hemianopsia can be caused also by lesion in the visual path. He would, I think, place the lesion in Burnett's case in the dorsal half of the external geniculate body. At a meeting (January, 1901) of the Ophthalmological Society of the United Kingdom, Anderson Critchett reported a case of perforating wound of the skull in an English officer. The bullet had passed in at one occipital region and out at the other side. He had lost his sight at

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(13) Ann. d'Ocul. cx., p. 44.

(14) Archiv. of Ophthal., 1900, p. 441.

once, but did not lose consciousness for half an hour. He was then unconscious for eight days, and at the end of that time was still blind. When seen by Crichett the lower half of each field was almost completely lost (= inferior homonymous hemianopsia). His diagnosis was injury to each cuneus. Henschen would say to the upper lip of each calcarine fissure.

II.—LESIONS OF THE OPTIC RADIATIONS.

Assuming that the fibres converging from the occipital cortex and passing around behind and on either side of the posterior horn of the lateral ventricle number amongst them the visual fibres, any lesion which interrupts these may cause hemianopsia and word-blindness, etc. And with such a lesion there would be the subjective sensation of blindness, not merely "*vision nullé*," as is the case when the centre is destroyed.

III.—LESIONS OF THE POSTERIOR THIRD OF THE HIND LIMB OF THE INTERNAL CAPSULE

It used to be universally supposed that lesion of this part of the internal capsule always produced hemianopsia, but Henschen has thrown doubt on this belief. Swanzy has also been unable to find any authentic modern case, with autopsy, which supports this theory. In a case of Henschen's, though the hind limb of the internal capsule was completely destroyed, there was no hemianopsia, and other similar cases have been recorded. Henschen believes that a hæmorrhage into the hind limb of the internal capsule by pressing upon the external geniculate body may cause hemianopsia, which would then probably be temporary. Wernicke has described bundles of fibres which pass off from the external geniculate bodies and pass backward for a short distance in the outermost part of the crus, where they join the optic radiations of the occipital lobe as a direct route of the optic tract and without passing through the internal capsule. Although these fibres have not been universally accepted, Henschen seems to favour the idea that the visual path passes directly from the external geniculate body into the optic radiations in the occipital lobe and parietal lobe.

IV.—LESION OF THE PRIMARY OPTIC GANGLIA.

These are the optic thalamus, anterior corpus, quadrigeminum and external geniculate body. Henschen's clinical researches go to prove very strongly that although fibres from the optic tracts pass both to the pulvinar of the optic thalamus and to the corpus quadrigeminum and that from these fibres pass to the occipital cortex, there is no evidence sufficient to conclude that these ganglia are included in the visual path. Indeed, regarding the pulvinar, Henschen's cases seem conclusive, as in one case the whole pulvinar was destroyed, and hemianopsia did not exist. But the external geniculate body is believed by Henschen and all other observers to be certainly connected with sight. Into it pass most of the fibres of the optic tract, and its lesion invariably gives rise to hemianopsia. Henschen, indeed, believes that the dorsal portion of the external geniculate body innervates the upper half of each retina, and the ventral portion the lower half of each retina. He reports a case of disease of the dorsal and dorso-medial portion of the external geniculate body, associated with the loss of the lower quadrant in each field. Hence he thinks quadrant hemianopsia can be caused by disease of the external geniculate body as well as of the cortex. Wilbrand,[15] also, records a case of lower quadrant hemianopsia due to a hæmorrhagic cyst in the dorsal half of the right external geniculate body.

V.—LESION OF THE OPTIC TRACT can be discussed in a few words. Complete lesion, of course, means hemianopsia. Henschen, however, considers that even in the tract the visual fibres of the ventral quadrant of the retina run ventrally, as they do, he thinks in the entire visual path, and the fibres of the dorsal quadrant of the retina run dorsally. Quadrant hemianopsia, he does not, therefore, consider to be pathognomic of a lesion in the occipital cortex, but it may be due to lesion of the visual path in any part of its course. He records a case of a tumour pressing on the right tract from above and from the outer side which caused a defect in the lower left quadrant of the fields only. This quadrant arrangement of the fibres seems to hold good also in the optic nerve itself. In lesions of the optic tract the patient is conscious of his lost fields. Another symptom which, however, cannot be absolutely relied upon is that observed by Wernicke, who pointed out that in lesions of the optic tract the afferent fibres for inducing the pupillary reflex connected with the blind half of the retina would be destroyed, and that light, therefore, falling upon the blind field would fail to cause contraction of the pupil, though if falling on the sound field contraction of the pupil would of course result.

VI.—LESION OF THE OPTIC CHIASM.

It is universally agreed that in the commissure the optic nerve fibres undergo partial

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(15) Neurologisches Curtralblatt, March 1st, 1898.

decussation as already described, though there is still some difference of opinion regarding the position and behaviour of the papillo-macular bundle of fibres. Segel[16] of Munich, as a result of enquiry into this question, considers that the papillo-macular bundle lies medio-dorsally in the commissure, and that the bundle of each tract undergoes partial decussation, and this view is held by many. If the commissure be divided in a sagittal direction, bitemporal hemianopsia results.

Segel relates an interesting case of his own who recovered from complete bitemporal hemianopsia after administration of iodide of potassium. The lesion was believed to be inflammatory exudation. He collected ninety-three reported cases of chiasm disease, the causes being: Trauma in seven, tumour in twenty-seven (of the hypophysis cerebri ten times, and at the chiasm proper four times), tubercular exudation or granulations in six, aneurism of the carotid or basilar artery in four. pressure from the third ventricle in three, periostitis in two, partial meningitis in four, gummous basilar meningitis = syphilitic disease of the chiasm itself in sixteen, gummatous arteritis in one, multiple sclerosis in one, hæmorrhage into the chiasm in one, hyperplasia from elephantiasis in one. Among the tumours were six gummous, one glioma, one endothelioma, one adeno-sarcoma, and one enchondroma. *Syphilitic processes were present in nineteen cases, or twenty per cent.*

It seems probable, however, that Segel underrated the number of cases of chiasm disease due to acromegaly, and Ward A. Holden[17] contributes a paper on the sequence of changes in the optic chiasm produced by acromegaly as exemplified in three cases observed by him, and gives also statistics of other cases. In each of his cases the pituitary body was enlarged and had compressed the optic chiasm. In one case where the enlarged pituitary body nearly filled the space included in the circle of Willis, the chiasm was reduced to a mere membranous band, and the atrophied optic nerves flattened and distorted emerged from between the pituitary body and the atheromatous anterior cerebral arteries. He was able to collect two hundred reported cases of acromegaly. In somewhat less than fifty per cent. of these there was bitemporal hemianopsia, absolute or for colours only, with or without some accompanying contraction of the nasal halves of the fields. In less than one dozen cases there was homonymous hemianopsia (evidently from pressure of the enlarged pituitary body on one tract), and in one case there was atypical binasal hemianopsia. This last might be explained by the enlarged hypophysis pressing the outer half of each tract against the hard atheromatous internal carotid artery.

FOUR CASES OF HEMIANOPSIA.

BY J. LOCKHART GIBSON, M.D. EDIN., M.R.C.S. ENG., BRISBANE, Q.

READ BEFORE THE QUEENSLAND BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

Case I.—Male, aged 65 years, highly educated. Seen once in consultation with Dr. John Thomson in December, 1896.

History.—Could see quite well until six weeks ago, though the left eye was never so good as the right, and the left upper lid has drooped a little for 20 years. Stomach became upset six weeks ago. A month ago, after a severe day's work experienced an appearance of fire before both eyes, of blue, orange, and red colour. Was quite unable to look for any length of time at any object, and had toothache as well as neuralgia in the face and brow. The neuralgia pains soon disappeared. The eyesight has been failing since. Used to smoke $\frac{1}{4}$ lb. of tobacco weekly, but has smoked very little for a year past. A total abstainer.

Examination.—Discovered left homonymous hemianopsia, the vertical lines of demarcation just stopping short of the centres of the macular areas. Vision with his sound fields, R.E. $\frac{6}{9}$, L.E. $\frac{6}{18}$. Incipient cataract in each eye, that in left eye somewhat the further advanced. Fundus of each eye normal, pupils react normally to light and accommodation. No paralytic symptoms, no word blindness. Arteries atheromatous.

Diagnosis.—Left homonymous hemianopsia, due to a lesion, probably a hæmorrhage in the right calcarine region. Though he knew that he was seeing less well, he did not recognise the fact that his left half-fields were absent, as would have been the case had the lesion been in the visual path and not in the cortical centre. The initial sensation of blue, orange, and red light or fire was evidently an irritative one, probably owing to the commencing hæmorrhage. The lesion being on the right side word-blindness would not be expected and was not present. My notes say that we gave a grave prognosis.

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(16) Archiv. of Ophthalmol., January, 1901.

(17) Archiv. of Ophthalmol, March, 1900. Archiv. of Neurology and Psycho-Pathology, Vol. II., No. 3.

He lived many miles from Brisbane. His death occurred three months later, and the certificate stated:—

Primary Cause.—Atheroma.

Secondary Cause.—Cerebral apoplexy.

I believe that there was no *post-mortem*, but his medical adviser has left the colony.

Case II.—Male, aged 58, educated; seen in conjunction with Dr. Jackson.

In August, 1900, had an attack of severe occipital headache together with some mental confusion and diminished sight. Hemianopsia was not observed and was probably not present. There were fine vitreal opacities indicating some chronic choroiditis. He improved after exhibition of iodide of potassium, but did not continue the drug for more than two weeks when he left for his home in another part of the colony. He was seen only twice in the early part of this attack and not again until December 19th, 1900, *i.e.*, four months later. He then stated that his sight had improved to enable him to conduct all his necessary duties and that headache had not returned until a few days ago, when he experienced severe occipital headache, together with pain in the eyes and greatly diminished sight. The headache had continued.

Examination.—Fine vitreal opacities in each. Corrected vision, R.E. $\frac{6}{60}$, L.E. $\frac{6}{18}$. Right homonymous hemianopsia, vertical lines of demarcation stopping just short of centres of macular areas. He had word-blindness but not letter-blindness, he could write as well as his diminished sight would allow, but could not read what he had written, not even his own signature. He could, indeed, read words of two letters but that was merely because he retained the power of reading letters. He had little or no mind-blindness. He was put on large doses of iodide of potassium, and whether as a *post hoc* or *propter hoc* his corrected vision in his sound fields improved to R.E. $\frac{6}{24}$, L.E. $\frac{6}{9}$, his headaches disappeared and his mental condition became clearer. His hemianopsia and word-blindness persisted until I saw him last in March of this year, and I believe that his condition is still the same. He was quite unconscious of the fact that the right halves of his visual fields were abolished, though conscious that he saw badly and of his inability to read.

Diagnosis.—Right homonymous hemianopsia with word-blindness, but without letter-blindness, due to lesion, probably a hæmorrhage or thrombus in the left calcarine region, destroying the primary visual centre and visual word-memory centre, but not the visual letter-memory centre. The fact that he was not conscious of the loss of his right visual fields, and the fact that word-blindness existed excluded the visual path from being the seat of lesion. The attack in August, 1900, was doubtless also a hæmorrhage or a thrombus, and it may have involved the left visual centre and been overlooked, though I fancy not. In any case it did not in August involve the word-memory centre. His fine vitreal opacities suggested chronic choroiditis, accounted for some of his diminished vision, and was a chief reason for ordering iodide of potassium. He had atheromatous arteries.

Dr. Webster, of Melbourne, also saw the patient prior to my seeing him in August, 1900, and again in February of this year.

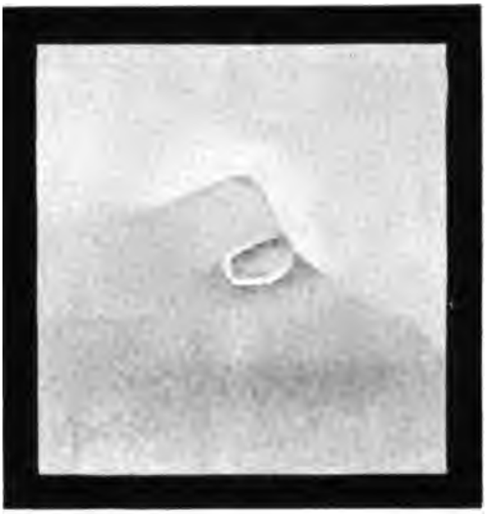
Case III.—Female aged 49 years, highly educated. Consulted me at the suggestion of Dr. John Ure in March of this year. Three years previously I had corrected her refraction, and had, therefore, a record of her then vision.

History.—In October 1900, had a severe attack of right hemiplegia, with unconsciousness and affected speech for some days. During the attack could hardly see at all, especially things on her right hand side. Even now she says she cannot see objects properly on her right hand side.

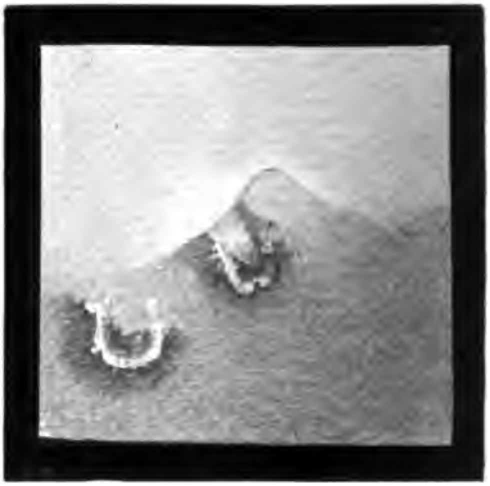
Examination.—Hemiplegia has been practically recovered from. Vision with glasses for correcting a high degree of hypermetropic astigmatism and ordered in 1898, R.E. $\frac{6}{12}$, L.E. $\frac{6}{6}$; *i.e.*, identical with vision of three years ago. No disease in either fundus. Right homonymous hemianopsia, the lines of demarcation stopping just short of the centres of the macular areas. Can read aloud fairly well, though not as perfectly as formerly, as she mispronounces a word occasionally. Can talk with a very slight hesitation, can write to dictation only fairly well, and can write without dictation only very imperfectly. She has, therefore, right homonymous hemianopsia, without word-blindness or letter-blindness. She experiences difficulty in writing words or expressing herself in writing. (This difficulty has steadily decreased). Has a feeling that she sees nothing on the right side, and that things on that side are wrong. For this reason would not trust herself in the street alone.

Dr. Ure's diagnosis was embolus. He could find no signs of valvular lesion though the heart he says is not a strong one. It is quite possible that this diagnosis is correct, or a hæmorrhage into

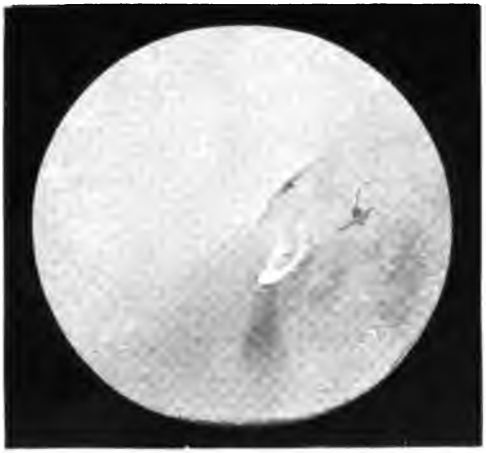
Supplement to "The Australasian Medical Gazette," July 20th, 1901.



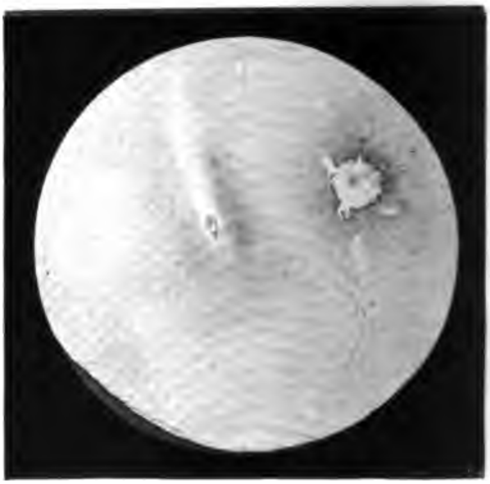
1.—TUBERCULAR ULCER IN WOMAN, 32.
ORIFICE OF URETER.



2.—TUBERCULAR ULCERS IN MAN, 58, WITH
TUBERCULAR PROSTATE AND TESTES.



—SIMPLE ULCER, WITH NINE MONTHS' HISTORY.
WOMAN, 38. BLADDER OTHERWISE HEALTHY.

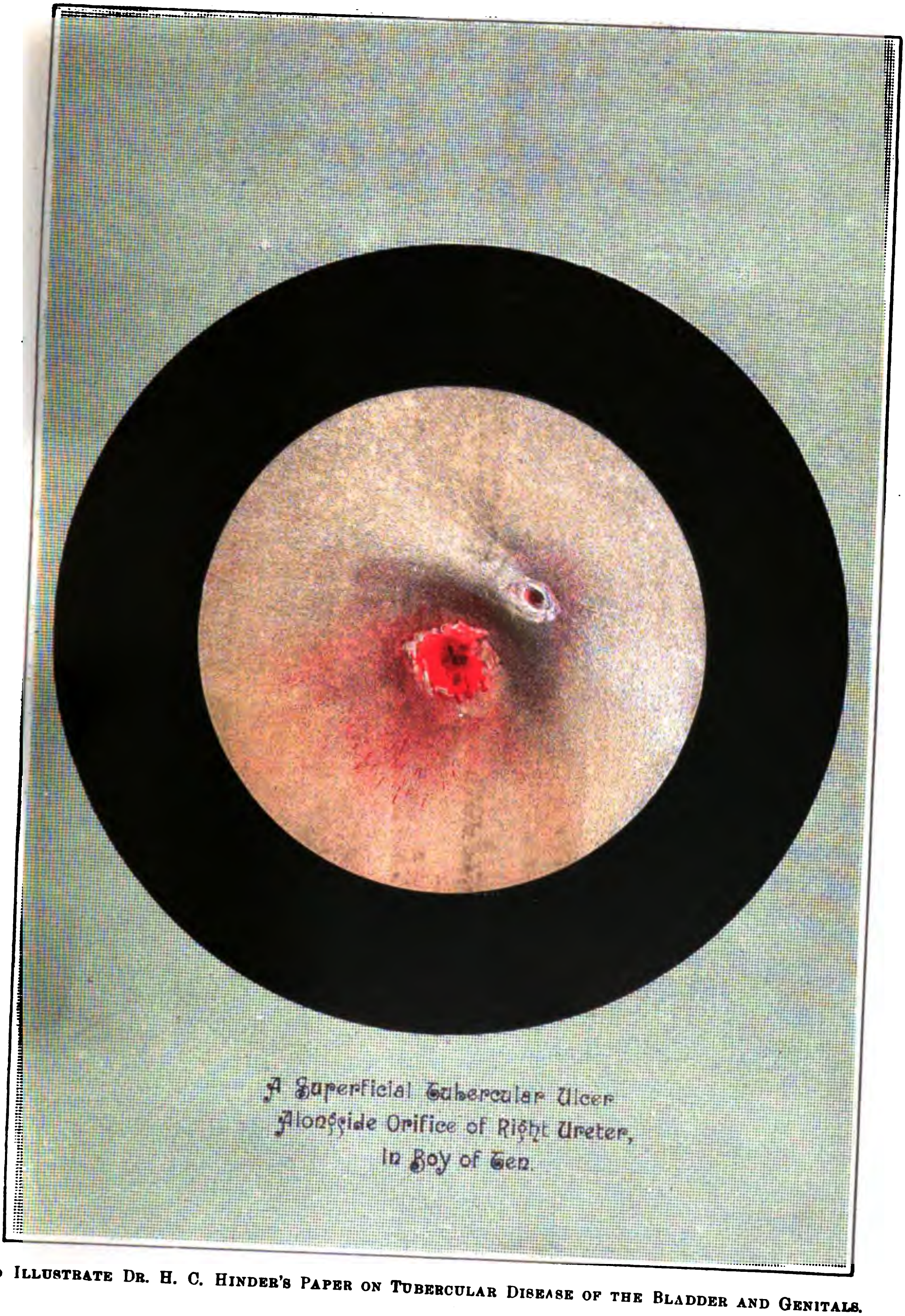


4.—SIMPLE ULCER IN WOMAN, 34. TWO YEARS' HISTORY
BLADDER OTHERWISE NORMAL.

TO ILLUSTRATE DR. H. C. HINDER'S PAPER ON TUBERCULAR DISEASE OF THE BLADDER AND GENITALS.

HN SANDS, PRINTER, SYDNEY.

Supplement to "The Australasian Medical Gazette," July 20th, 1901.



A Superficial Tubercular Ulcer
Alongside Orifice of Right Ureter,
In Boy of Ten.

TO ILLUSTRATE DR. H. C. HINDER'S PAPER ON TUBERCULAR DISEASE OF THE BLADDER AND GENITALS.

the posterior limb of the internal capsule, permanently destroying the posterior third of that limb. The hemiplegia has been practically recovered from. A diagnosis of cortical lesion would involve two separate ones, and it would not accord with the existence of so distinct a consciousness of the defect in her visual fields. In the light of Henschen's researches, however, the possibility of the external geniculate body having been the seat of a hæmorrhage should not be lost sight of. A distending hæmorrhage in the left external geniculate body could account for the hemianopsia, and by pressure on the internal capsular fibres in the crus or in the internal capsule itself could account for all the hemiplegic symptoms and for their being non-permanent. Dr. Ure says that the paralytic symptoms appeared, first speech, then arm, then leg, then unconsciousness for three or four days, and that recovery has been gradual.

Case IV.—Male, aged 61 years. Highly educated. Consulted me only once in December 1896.

History.—Eyes have gone off suddenly during past three months, only failed previously on account of age. Vision, he says, seems to be narrowed down, can still read though has trouble at times in fixing the print, and occasional diplopia. Used to smoke very heavily but now only moderately. At one time drank much alcohol. He could "hold a lot," and never became intoxicated. Contracted lues 35 years ago. (Has psoriasis palmaris now.) Has had albuminuria for three years.

Examination.—Complete loss of nasal field in right eye, the obliterated half field slightly overlapping the centre of the macular area. Loss of nasal field in left eye, the line of demarcation stopping short of the centre of the macular area. Lower field of left eye a little reduced. Outer $\frac{2}{3}$ of each disc distinctly too pale; amounting to atrophy. Vision with his sound fields R E. $\frac{6}{18}$, L.E. $\frac{6}{12}$,

Diagnosis.—Bi-nasal hemianopsia, due to disease of the outer half of each optic nerve.

The patient died four years later from a complication of diseases, old-standing kidney disorder being one of them. His medical attendant has told me that his sight became gradually less, the remainder of his visual fields becoming gradually lost. At the time of his death he was nearly quite blind. Doubtless he had then nearly complete white atrophy of each disc. I did not note whether Wernicke's pupil symptom was present or absent.

TUBERCULAR DISEASE OF THE BLADDER AND GENITALS.

By H. Critchley Hinder, M B. et Ch.M. Syd., Hon. Surgeon Prince Alfred Hospital, Lect. Clin. Surg Syd. Univ.

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This subject is a very large one, so I hope you will pardon me if I deal with certain parts of it somewhat cursorily, and direct your attention more particularly to those in which a correct diagnosis is extremely uncertain, owing to the difficulty in obtaining sufficient data to go on. I prefer, as far as possible, to place before you my own impressions, gathered from a number of cases which have come before me during the past few years.

To begin with, the mode in which the primary infection of the genitals or bladder is received is a question which has given rise to a lot of conjecture, which is, at all events, not altogether too convincing. The theory of infection by contact is hardly supported by any number of cases of tubercular ulcer about the glans penis and tubercular foci usually appear at the seat of inoculation, if that be through an abrasion. I think, too, that the gynæcologists will tell us that vaginal or cervical tuberculosis is not very common, certainly I should say not nearly so common as tubercular disease of the male genitals, and tubercular disease of the penis is very rare indeed. Then again, direct infection of the bladder is said to take place by extension from the peritoneum or the Fallopian tubes. If this be so, the trouble in the bladder wall is, as a rule, fairly well advanced before marked bladder symptoms supervene. In fact, I have seen cases of tubercular peritonitis where the abdominal aspect of the bladder was studded with tubercle, yet no abnormal bladder symptoms were present, presumably, because the bladder epithelium was not involved. Bryson is strongly of opinion that very many cases indeed occur as extensions from an infected pelvic peritoneum. It would be interesting to know whether this supposition is borne out by *post-mortem* data, for Bryson, in mentioning this, presupposes the existence of a quiet insidious tubercular condition of the pelvic peritoneum, which gradually attacks the bladder and accounts for the frequency of tubercular lesions on the posterior wall. Senn and Fenwick are both inclined to view this theory with favour. For my own part, I must say that one-half of the cases of tubercular ulcer of the bladder I have met with were situated near the orifice of the ureter, though at the same time additional weight is given to this theory of peritoneal infection by the condition of affairs found in the Fallopian tubes. The infection almost always begins at the fimbriated end and occurs within the lumen of the tube first. This form of infection is about the commonest form which tubercular disease of the pelvic organs in women takes. Let me give you one or two instances of this apparent peritoneal infection A young woman, aged nineteen years, was admitted for indefinite pelvic pains and with some occasional frequency of micturition. Dr. Foreman kindly asked me to see her as there was nothing in particular to be felt on per vaginam examination. The cystoscope showed six or eight tiny raised red patches scattered over the bladder wall. She was kept at rest in bed and then sent away for a month to Camden. On her return, greatly improved in health, I was unable to find any indication of bladder trouble and she felt none—this was eighteen months ago. The other day she called at my rooms complaining of frequency and pain after micturition and pain at the neck of the bladder. Cystoscopic examination showed two red blazes on the posterior wall of the bladder and also a deeply inflamed trigon with superficial ulceration near each ureteral orifice.

I saw a girl of eighteen with Dr. Gordon Craig. She has had a leucorrheal discharge for some time past. For the past twelve months she has complained mainly of attacks of retention of urine coming without any known cause, and some pain when her bladder is very distended. Her menstrual history is normal. The cystoscope showed two long, red patches on the superior wall and three superficial ragged ulcers surrounded by a red, angry surface situated on the trigone, and near the left ureteral orifice. Per vaginam, there was some tenderness about the right tubal region and a distinct though not very marked thickening of the right Fallopian tube. It appears to me that there is but little doubt but that we have here a primary tubal infection, at all events as far as the pelvis goes, with, perhaps, a secondary uterine and certainly a secondary bladder infection. The first case also tells its own tale. It was long ago thought that in men the testicle or epididymis was primarily at fault and that an ascending infection almost invariably followed. At the same time there can be but little doubt but that infection of the bladder downwards from the kidney by way of the ureter or upwards from the epididymis along the vas deferens does take place and that this infection is more than probably due to lymphatic or to gradually creeping superficial extension.

Still, it appears to me that in many cases infection takes place not so much by means of a single focus but that several foci appear in the genitalia about the same time. I could see no reason why this should not be so, and I very frequently found it to be the case clinically. However, so quiet and so insidious is the onset of tubercle in the prostate and the bladder that if the first infection did appear to the patient to be in the epididymis it might easily have been in the prostate some considerable time before without giving rise to any symptoms.

The infection of the genitals is probably very rarely primary but secondary to a primary focus elsewhere which may very likely have been lying quiescent for years, for the one very remarkable feature in the life of tubercle in the genitalia is it tendency to chronicity.

I often see a man, aged fifty, whom I have known for ten years. Fifteen years ago he had hæmoptysis but speedily became quite well, nor has he had chest symptoms since. Ten years ago he developed a Potts' curvature from which he recovered after laminectomy and nearly five years spent in bed, part of the time hemiplegic. He has had tuberculous kidneys for eight years and tuberculous testicles for nine years. The testicles have nodules which soften and harden up again when his health improves. This man looks well, is not very much troubled with his urine, and enjoys fair health. His attack of hæmoptysis is very fair evidence that the primary infection was in the lung.

It is more than probable that the genitals are in some cases infected owing to the impairment of their vitality. Such a condition might easily be occasioned by over activity of the sexual functions or by an attack of gonorrhœa. As an example of this I may mention the case of a pale, thin, ill-developed young man who contracted gonorrhœa. A chemist injected a solution of perchloride of mercury. Cystitis set in at once and for nine months before I saw him his life was a curse to him. There was a small nodule in the epididymis of which he was not aware. Tubercle bacilli were present in the urine. I drained him through the perinæum and attended to his bladder. He recovered in four weeks sufficiently to leave hospital. I heard from him eighteen months and three years afterwards and he was still quite well.

I do not mean to say that all somewhat acute exacerbations are due to one or the other of these causes I have mentioned. I have seen several cases of tubercular bladder and testes in feeble old men in whom the condition had probably lain quiescent until impaired general health had been a sufficient stimulus to excite the activity of the tubercle. I have frequently come across nodules in the prostate and in the testes in the course of routine examinations, which, without doubt, were quiet tubercular deposits, or remains of old deposits and which, in some cases, the patient could assure me had been present for a great length of time.

From the remarks I have gathered from many practitioners I feel sure that there is a general impression that tubercular disease of the bladder and genitals is confined to young folk, or, at all events, to those under thirty-five and that it is hardly to be reckoned on in patients over fifty. Notwithstanding this, I have seen within the last six months no less than four men whose ages range from fifty-eight to sixty-five who were suffering from tubercular testicles, prostate and bladder. There is no great difficulty in arriving at a diagnosis of tubercular testis or epididymis. Small nodules the size of indian shot or a pea are first noticed and these increase and involve neighbouring parts, affecting the testis and spreading up the vas deferens. A little circumscribed mass may be felt becoming adherent to the skin and tending to break down. Localised hydrocele is a common accompaniment. There is usually absence of pain until the condition is far advanced, and this is probably partly the reason why cases are not often recognised or considered by the patient to be serious until a late stage has been reached. However, all this is so well known as to hardly need repetition.

If the affected gland is left alone it may remain a long time without breaking down, but resection of the tuberculous part only is a safe and satisfactory surgical procedure. Inasmuch as in many instances it is extremely probable that several foci appear at the same time, it is not wise to attempt removal unless the patient fully understands that the operation is not of necessity curative but is undertaken in order to get rid of a local cause of annoyance. I know cases where the tubercular infection exists in testes prostate and kidneys, and the testes have remained without breaking down for several years, so that there is not always urgent demand for operative interference in such cases, and the sentimental factor has to be taken into consideration as well.

I am strongly of opinion that tubercular disease of the prostate is almost, if not quite, as common as tubercular disease of the testicle, and that its infrequent recognition is partly due to want of proper search and partly to one's inability to examine it as thoroughly as the testicle. Per rectum the rounded nodule or nodules perhaps as large as a pea are more superficial than prostatic calculi and much more discrete, and yet they have not the stony hardness or irregularity of early malignant disease They are superficial because they often take origin in the close meshwork of veins which surrounds the prostate. Later on they are apt to break into the bladder or urethra and in the latter case to give rise to a watery sort of purulent discharge, a little like a gonorrhœal discharge, only its profuseness is out of proportion to the symptoms present.

Tubercular disease of the bladder is without doubt the condition which presents the greatest difficulty in diagnosis. Very frequently its onset is accompanied by evidence of tubercular disease close at hand. It is possible to have a tubercular ulcer of the bladder without any bladder symptom whatever. At the present time I have a lad in hospital who had tubercular patches on his bladder wall and a tubercular epididymis. He now has an ulcer near his right ureter which was easily demonstrable to those present at the last examination. The rest of the bladder wall is healthy, yet at the same time this lad has not one abnormal symptom.

One of the earliest symptoms is frequency of micturition. This comes on so insidiously that the patient may not appreciate it until he wonders why he should need to get up once or twice at night to pass water. Rest for a day or two appears to have but very little influence over the condition. At times the administration of alkalies if the urine be very acid, gives a temporary relief and lulls both practitioner and patient into a belief that the trouble is all over, but a permanent relief is by no means obtained. Later on, it may be weeks or months, the frequency, with, perhaps, pain at the end of micturition and also before the act, becomes more pronounced and a slight pink tinge and slight straining is noted towards end of micturition. This may not always be present, but is more marked as the case progresses. In exceptional cases the first complaint will be that blood or smoky urine has been passed, but on close enquiry it will generally be found that frequency has preceded it. Pain is said by some to occur at the middle of the penis but the situation as well as the early appearance of pain depends on the part affected. If the trigone is involved and inflamed, pain at the tip of the penis and after micturition is almost certain to be felt and will probably be an early symptom. Pain is often referred to the side on which the ulcer is situated, or in both sexes it may be felt right along the urethra and at the neck of the bladder.

One very important point is this. Even when distinct ulceration is present, the urine may appear to be quite clear and pus will not be discovered unless a microscopical examination is made. There is very little discharge of pus from a tubercular ulcer until it becomes septic. Directly, however, an instrument has been passed, at all events directly sepsis has been introduced, the whole character of the deposit is altered and the patient's chance of recovery diminished to a very marked extent.

Repeated examinations may lead to the discovery of bacilli in the urine but the task is an extremely difficult one, and with a little experience one can state fairly positively in most cases what the character of the case is on the strength of a cystoscopic examination alone. In order to discover the bacilli, the urine should be fresh, as ammoniacal urine seems to interfere with proper staining. The bacilli from the bladder are usually separate and very few in number, often only four or five in a field. The absence of bacilli, even after a number of slides have been examined by no means negatives the presence of a tubercular condition. It is, after all, not at all surprising that particularly in early cases the bacilli are not over numerous, for the bacilli are not to be found on the surface of the ulcer but in the underlying tissues at the outskirts and have but small opportunity of getting into the urine. Cystoscopic examination under these circumstances is of inestimable value, and I shall endeavour to describe the conditions presented. In the earliest stage when infection appears in three or four different places over the posterior wall of the bladder, small red spots may be seen about as big as a typhoid spot, the rest of the bladder being quite healthy. In a later stage broader red patches are met with here and there, or maybe only one or two. These patches are much darker in the centre and will presently show little white necrotic flakes on the surface Later still distinct superficial necrosis or ulceration takes place and a ragged edged patch is seen with little white filaments waving about and breaking off in the swirling eddies made by the movement of the cystoscope. The surrounding surface of the bladder for half an inch or so is very hyperæmic and injected vessels run into it from all sides. In still older ulcers the floor has a sort of gelatinous wash-leather like appearance, the edges are clear cut, and the surroundings are a deep. dull, angry red Whereas the simple ulcer is usually single, the tubercular ulcer if it it single is associated with conditions which indicate a more multiple or general infection of the vesical wall apart from any indications received from other adjacent parts. If the ureter is affected the orifice is large and open and at times drawn upwards and outwards. The orifice is at times rounded and large enough to slip the little finger into the canal or again it may be irregular in shape.

Some patients experience peculiar attacks of retention which come on for two or three days every now and then. Inasmuch as the concomitant symptoms are very slight and not sufficient to cause alarm, these unfortunates are frequently accused of being hysterical. These attacks usually follow upon too long retention of urine and are probably due to reflex spasm brought on by the overstretching of the inflamed or ulcerated bladder wall. Within the past few weeks I have met with three cases in women of the character I have described.

The mimicry of tubercular disease of the bladder is very remarkable, and there are numerous examples on record where the patients have been operated on for stone in the kidney or stone in the bladder when no stone has been present. Such a state of affairs is inevitable, though a thorough cystoscopic examination cannot fail to be of vast assistance The treatment of tubercular disease of the bladder is a matter in which very poor progress has been made. Most men even now recommend that no operative interference be attempted. All unite in advocating the importance of fresh air and fattening foods. In addition to this I am quite sure that all urinary troubles do better with absolute rest. No doubt some cases of tubercular disease in old people will need a very modified form of rest. Rest should be given to the whole of the body and if possible a physiological rest to the affected part.

My own opinions were considerably influenced by a case under my care some six years ago. I opened suprapubically to examine the bladder of a boy of sixteen with hæmaturia occurring after some months of cystitis. Bacilli had been found in the urine after prolonged search. I drained by the perinæum with a glass tube. By some mischance two of the residents fell ill, and the lad was sadly neglected. He became septic and ran along with a hectic temperature and dribbled constantly from each of his gaping wounds. He became thin and ill. He was sent home after seven weeks and I then instructed his parents to fatten him and to let him live night and day on an open balcony. In three months time he was quite well. He went to South Africa with one of the contingents and is, therefore, I presume, in good health. This, then, was a case of a combined septic and tubercular infection which recovered despite unfavourable conditions. After this I devised the metal drainage tube by means of which any nurse may wash a bladder out frequently and thoroughly without in any way exposing the patient. Later on I decided to drain a man of twenty-three who had a septic tubercular cystitis lasting for eight months. In one month drainage was discontinued and two months after he was well. Recently I drained the bladders of two men aged fifty-eight and sixty-two. Each had tubercular testicles and some hæmaturia and frequency. There was tubercular ulceration posterior to the orifice of the left ureter in each case. The hæmorrhage ceased, the ulcers healed, but one man I heard of the other day and whose bladder was hour-glass in shape from old and extensive scarring, is as bad as ever, suffering from frequency and dirty urine. At the same time I must, in justice to the treatment, say that he left hospital with less frequent micturition and clean urine.

The patient and his attendant, too, are both apt to forget that tubercular disease of the bladder will relapse as easily as tubercular disease of the lung or any other part if the patient is neglected, and that this tendency to relapse is much more marked in the very old than in the very young.

Drainage and mechanical interference is condemned by many urinary surgeons, but very recently Guyon has quoted a case of his which he drained with such good results that he expressed his intention of giving it a further trial. In women the usual method of draining with a glass catheter and frequent washing is good.

Whether they be male or female cases the routine treatment is to wash out the bladder with a weak solution of Condy's fluid or other antiseptic every four hours, and once a day to inject one ounce of a solution of silver nitrate one grain to the ounce or less once a day and to leave it there for a few minutes Iodoform seems to be of very little value. It is very probable that other weak antiseptic solutions would act equally well, though if any change be made at all for my own part I should prefer one in ten thousand perchloride of mercury.

Young people recover much more readily than older folk For example a boy of ten years was brought to me suffering from hæmaturia and slight pain when his bladder was distended. There was a superficial ulcer with a broad diffuse inflammatory base just close to the orifice of the right ureter. This lad was kept in bed and his bladder washed out with silver nitrate solution as I have explained, but less frequently, and later on a catheter was tied in for a time. Internally he took boracic acid and cod liver oil. In ten days the blood had ceased and in one month the ulcer had quite healed. Four months after he was still quite well. I might add the case of a lad of eighteen who had a tubercular ulcer nearer the trigone, and who had not a single symptom. Drainage with a soft catheter per urethram produced an equally good result.

As a rule women and young males bear drainage per urethram very well indeed, but older males usually find it most irksome In some very early cases simple rest in bed, fresh air, a milk diet, and a urinary antiseptic will produce good results but in a great many cases early cystotomy with thorough drainage by the perineal route, and, above all, frequent washing out will yield the most gratifying results. I maintain this notwithstanding the general opinion expressed to the contrary, and results have repeatedly proved to me the efficacy of this line of treatment.

Cystotomy and mechanical interference are not to be thought of in advanced age where the prostate and especially the prostatic urethra are involved. Even catheterisation will sometimes only aggravate the existing condition.

The prognosis I have already touched upon, and, after all, it is like tubercular disease elsewhere. The local condition may be subdued and no further evidence appear for years until the health is below par, then the relapse occurs or a fresh infection appears. Still, tubercular disease of the genito urinary organs and the bladder is very amenable to treatment and only needs the same care in the general technique which tubercular lesions demand in every other part of the body.

The mistake made is in allowing patients to put up with a little urinary inconvenience too long. First find out the precise cause of their trouble, then treatment is easy enough.

I should very much like to quote a few cases which would illustrate further the symptomless character of tubercle in this region, but I fear that I have taxed your patience quite sufficiently. However I sincerely hope that though I may have told you nothing new, I may have, at all events, somewhat roused your interest in the study of cases which are extremely unique and certainly at times very difficult to diagnose.

(*For discussion on this paper see page 297.*)

A CRITICISM OF RUSSELL'S OPERATION FOR HERNIA.

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In September, 1899, R. H. Russell, of Melbourne, read a paper on hernia before the Brisbane Medical Congress. This paper, from the clearness of its language and the apparent soundness of its reasoning, attracted considerable attention, and has exercised great influence on the subsequent treatment of hernia in children. In a paper published in the *Australasian Medical Gazette*, September, 1900, I ventured to propose a new method of operation, but I was not then prepared to criticise Russell's paper, though it appeared that he had failed to prove his case. Further reflection and observation have confirmed this conclusion, and, as my own operation is founded upon a basis in some respects inconsistent with Russell's, it will not, perhaps, be taken amiss if I venture to formulate some reasons for refusing to accept in its entirety Russell's position.

Briefly stated, his argument is as follows: All inguinal herniæ in the young are due to the presence of a patent funicular process of peritoneum. Without this there can be no oblique hernia. To cure the condition it is only necessary to ligature and remove the sac. Acquired hernia in the young is practically invariably direct.

(*a*) The keynote of Russell's argument is contained in what he calls his "axiomatic statement," as follows:—

"If in a case of inguinal hernia the sac be ligatured and removed, but no other measures be adopted for combating the supposed conditions that have caused the hernia, and the patient be allowed to get up and go about as soon as the skin-wound is healed, the hernia will, if of the acquired type, at once begin to reform; but, if it does not recur, the fact is proof that the sac must have been the original cause of the hernia, and that the hernia was not of the acquired variety, but one of those that are dependent upon the presence of a preformed sac."

Now, an axiom is, strictly speaking, a self-evident truth; a statement, the negation of which is inconceivable. On this definition we can hardly call Russell's statement an "axiom"; it rather appears to be a proposition, or even an assumption, and I am sure Dr. Russell will pardon me if I remind him that a proposition is something which depends upon logical proof. Now, he asks us to accept it as an axiom, and says candidly that unless we do so he can prove nothing. But surely, attractive though the proposition is, we cannot fairly accept as axiomatic the very thing that we want him to prove. The true statement of Russell's proposition is:—"If the sac be removed and the hernia do not recur, we infer that the conditions which originally led to the hernia have not yet recurred." What these conditions are is the whole question at issue.

Now, Russell shows that in a very large number of people the funicular process remains patent, and that in only a small minority of these does it lead to hernia. Hence he argues—and superficially the argument seems not unreasonable—that a patent funicular process is necessary for the production of oblique inguinal hernia. Probably Dr. Russell will agree that the reasoning is a little unfair if we re-cast it as follows:—Some people have a patent funicular process, only a minority of these have oblique inguinal hernia into it, therefore all oblique inguinal herniæ are into patent funicular processes.

It is clear that this conclusion is quite unwarranted. From these premises no absolute conclusion is possible; but we shall probably not be far wrong if we say that "Therefore some other factor is necessary for the production of a hernia."

(*b*) Let us now turn to the definite statements of fact in his paper.

(i.) Contraction of the abdominal muscles is invariably accompanied by a corresponding contraction of the inguinal sphincter, thus rendering the escape of the hernia impossible. Now, I do not see how we can possibly accept this statement as a proved fact We know that co-ordination in other parts of the body is frequently at fault—else why should a careless eater choke over his food, or why should many people find it impossible to pass water under unusual conditions—and it seems not unreasonable to infer that the sphincter of the internal ring may be as liable to err as any other muscle. There are reasons for thinking that this want of co-ordination may cause many acquired herniæ in adults and adolescents, quite apart from the presence of a congenital sac, as I showed in my paper last September.

(ii.) Russell compares the femoral with the inguinal ring. He states that the femoral ring lies open and easily invites the entrance of a hernia, while the inguinal canal is always closely shut whenever one would expect a hernia to descend into it. None the less, inguinal hernia is much more frequent than femoral; therefore, some other factor must have been introduced—a congenital sac. I cannot allow the statement to pass that the femoral ring lies open and unprotected. The real fact is that over it lies a little heaped-up mass of fat and peritoneum, which acts as a barrier to turn aside intra-abdominal shocks. Again, there is a strong process of transversalis fascia, which must greatly strengthen the ring. Nor is the inguinal ring so ideal in its construction as Russell states. The infundibuliform fascia is a wedge, the only effect of which seems to be to force open the canal and allow a hernia to descend. It is a very imperfect arrangement for the vertical position. Treves[1] states that it is impossible under normal conditions to pull the intestine through the femoral canal, or in to the scrotum. Lockwood[2] states that it is possible to pull the intestine an inch into the femoral canal on the right side, but not at all on the left; while the intestines have sufficient play to form an inguinal hernia in every individual. It is, therefore, clearly less easy to form a femoral hernia than an inguinal, simply because the former is an utter impossibility in a great many people; and I really see no necessity to account for the preponderance of inguinal herniæ by the postulation of a congenital sac.

(iii.) In Russell's first paper, he stated that he had operated 60 times; in the second 80 times. Out of 60 operations there had been one death, and as we are not informed what the mortality and cure-percentage were in the 80 cases, we must take the first series. The results were:—

Cured	36
Doubtful	23
Died	1
	60

For 36 cures, therefore, we have one death. It is noteworthy that the cause of death was a septic ligature, which would not, at first sight, appear to be a serious matter; and this agrees with the commonly accepted opinion that children are less suitable subjects for serious operations than adults. In my former paper[3] it was stated that the operation mortality in adults was considerably less than ½ per cent., and this included many large operations on old men; if the mortality in children be larger than this, my opinion is that it would be safer to wait till adolescence, or at any rate to try a truss faithfully before operating. A truss can do no harm—it often cures (*pace* Russell)—and the child's grievous fault of extreme youth is one that he will very soon grow out of.

(iv.) Russell has observed a number of annular thickenings on hernial sacs, and has come to the conclusion that these are evidence of funicular origin. I have not been satisfied of the existence of these annular thickenings in more than a small proportion of cases; the thickenings that I have seen are irregular, purposeless, and obviously due to some trifling inflammation. These small inflammations are very common in herniæ.

(*c*) We may now glance at some evidence which appears to tell against Russell's position.

(i.) In the normal body, the obliterated funicular process is represented by a thin cord. If all hernial sacs were really patent or partially obliterated funicular processes, one should find this thin cord running from the tip of every sac, except in complete congenital or infantile herniæ. I have looked for this cord, but have never been able to find it, except in one case of undoubted funicular hernia; but if any other observer has successfully done so, I believe it would go far to confirm Russell's case. Without this anatomical requirement being fulfilled, we cannot accept his proposition as correct.

(ii.) The presence of sub-peritoneal lipomata in the inguinal canal in many cases of hernia seems to be a fact that must be explained. A reasonable explanation would be that the fat, penetrating the careless inguinal ring, acts wedge-like and forces it open, allowing a sac to descend behind it. I once saw a man in whom I diagnosed inguinal epiplocele, but found his whole canal full of a fatty tumour; on removing this, a little sac was found in the midst of it, which was evidently just formed. This was a clear case in which a lipoma had preceded a hernia. But, if a lipoma forces open the ring once, it may do so again; and therefore it appears to follow that we should close the ring permanently and not give it another chance. Since lipomata are now observed in a large proportion of herniæ, I would go so far as to say that Russell's operation is unsuited for any case in which such a tumour is present, because I believe these tumours to be frequent causes of hernia.

(iii.) Although Russell dismisses summarily the argument that in hernia the sphincter is stretched and degenerate, and loses its power, yet none the less the argument has great weight. Nothing is more certain than that sphincter persistently stretched, or over-stretched, degenerates. The female vesical sphincter after over-dilatation, the vaginal sphincter after parturition, the anal sphincter after passing through the hands of some surgeons, are well-known instances; and I hold it as a proved fact that the inguinal sphincter follows the same rule. To leave such a sphincter to its own devices seems to me unwise.

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[1] "Surgical Applied Anatomy," p. 325.

[2] "Hernia. Hydrocele, and Varicocele."

[3] *Australasian Medical Gazette*, September, 1900.

The considerations above stated would appear to point to the conclusion that inguinal hernia in the young is not dependent solely upon the existence of a pre-formed sac, and that therefore Russell's operation, of merely removing the sac, is probably not sufficient in all cases. Russell, in his second paper, says, in essence, if herniæ are not congenital, show us the precise moment when they begin, and to this one confesses often inability. But what does that matter? Who knows when locomotor ataxia begins, or typhoid fever, or consciousness? And yet no one says that the new-born infant has locomotor, or typhoid, or is conscious!

It would rather appear that the causation of hernia is a much more complex affair than Russell believes. To my mind the internal ring is a vestigial structure from our quadrupedal ancestors, which worked very well in the horizontal posture, but is not invariably adequate to the vertical. From this point of view Russell's argument seems still less conclusive. It is now fairly well accepted that only congenital characteristics are transmitted; and that natural selection works through their agency. Now, it is inconceivable that, were hernia invariably congenital, such a very grave and, in a state of nature, fatal disability would not have been long ago abolished by natural selection. Yet we find that hernia is probably as common now as ever it was; some people say it is becoming more common.

I am inclined to think that in some cases lipomata open the canal, in others a slight incoordination of muscular re-action to the internal stresses may allow a little wedge of peritoneum to escape; while in a smaller number of adolescents the hernia is due to down-right flabbiness. In the remaining instances—probably a considerable proportion, though how large it is not easy to say—Russell's proposition would hold good.

As regards the treatment of hernia, the following conclusions appear reasonable:—

In infants, a year's trial of well-fitting vulcanite trusses should be made. If this fail, then Russell's operation holds out a good prospect of success.

In the adolescent, the canal should be laid open, and lipomata searched for and removed. Should the muscles seem firm and healthy, removal of the sac will probably cure the hernia. If degeneration has set in, this will not be sufficient.

In the adult, it is hopeless to expect an undegenerated sphincter; and the internal ring should invariably be closed. For this purpose, I would again bring before the profession the method of closing the internal ring in two layers[4]; the first one drawing the edge of the muscle and conjoined tendon to Poupart's ligament, and the second layer pleating the muscle over the seam thus formed, and attaching it to the lower surface of Poupart. In degenerate muscles this method is easy, and makes a very firm cicatrix, which I believe to be less likely to yield than that left after other operations.

PUERPERAL ECLAMPSIA (WITH CASES).

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As it often becomes necessary in discussing puerperal eclampsia to discriminate between the possible causation of its clinical, and its anatomical factors, I propose to consider, briefly, first, some of the lesions found *post-mortem* and their apparent results, and second, some of the questions more closely concerned in the outbreak of convulsions. Taking the kidney first "the organ most obviously at fault," the observations of very numerous pathologists have, I think, put it beyond doubt that the lesion most frequently found in it is a degeneration of the epithelium of some of the convoluted tubules, the lower parts of these tubules being more or less completely blocked by the separation, and running down into them of degenerated elements; that it is not a nephritis, but a form of necrosis "closely approaching the different coagulation necroses found in infectious diseases," in its character (Bouffe, de St. Blaise). The glomeruli appear healthy. It seems to be almost universally held that these conditions of the renal epithelium are the outcome of certain toxic matter circulating in the blood, and probably derived from tissue waste.

Dilatation of the ureters, most probably due to pressure upon them, is seen in a rather small proportion of cases.

It is important to note, however, that such observers as, *e.g.*, Prutz and Winckel, find in a proportion of cases, kidneys which they believe to be quite healthy, and in many other cases kidney lesions which are quite insignificant.

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[4] *Australasian Medical Gazette*, September, 1900.

Albuminuria.—Herman says that albumin is present in the urine at some period of the illness in all cases; it is certain that it may be absent from it a very few hours before the convulsions appear, and cases are very commonly recorded in which albumin has not been present in the urine examined during the whole course of the illness. Albumin is generally believed to be present in the urine, because, 1st, the injured renal cells cannot retain it in the blood or, 2nd, there is increased blood pressure in the kidney on account of pressure on the renal veins by the uterus; the latter alternative seems scarcely tenable as the sole cause.

Anuria (the term used in its casual sense), more or less complete, is present, according to Herman, in all cases except those complicated by previous renal disease, *e.g.*, cirrhosis (a recent case, *British Medical Journal*, April 6, 1901, in which urine was copious throughout, no kidney disease apparently). Anuria is generally believed to be the result of the laming of the kidneys by the cell degeneration and blocking above mentioned. Other reasons assigned are "circulatory changes," *i.e.*, spasms of the renal vessels, which would leave no *post-mortem* traces (Spiegilberg). It is evident that there has been doubt on the part of authorities as to whether the visible amount of physical damage to the kidney can be considered an adequate cause of the anuria, which is often almost absolute

Urea excretion.—It is well known that in eclampsia the urine is almost free from urea, and as Herman points out, it may be possible that this may be a factor in the causation of the anuria, the kidneys failing to excrete urine because they are deprived of the natural action of urea "the most powerful diuretic known." In acute yellow atrophy however, urea is absent, and the kidneys still act well. Is not this idea that the anuria may be due to some altered condition of blood, worthy of more consideration?

The Liver.—This organ has not been examined so frequently in these cases as have the kidneys, but so far there seems to be a large amount of agreement among pathologists as to the changes present, hæmorrhages, sometimes microscopic, sometimes quite large, and "fatty degeneration" or necrosis of some of the hepatic cells, "such as occur in acute infectious diseases" (Herman).

Pilliet describes the pathological processes in the liver as "beginning with dilatation of certain of the intra-lobular capillaries, followed by enlargement of the lobules and progressing degeneration of the intra-lobular elements from pressure of the dilated capillaries, the whole being surrounded by an irregular network of fibrils composed of fibrine; these necrotic patches extend and coalesce, so that in the most advanced cases large sequestra are formed."

These observations have practically been confirmed by a number of observers, Bouffe, de St. Blaise, Lavradour, Schmorl, etc. Schmorl found that in seventeen autopsies all of the livers presented numerous thromboses around the necrotic patches mentioned above, and he believes that it is these thrombi which cause the necrosis, and further, that the thrombi themselves are the result of a coagulating substance circulating in the blood of the eclamptic, and derived from the placenta. According to him (Schmorl), also the lesions found throughout the whole body—in kidney, lung, brain, etc.,—are all of this type, viz., thrombus formation and necrosis, and owe their origin to the same cause. The other view as to the cause of these changes is that they are due to "severe contamination of the blood" (Sir J. Williams, *Practitioner*, 1895), by poisons probably elaborated within the body, possibly from without the body. I am not aware of any eclamptic lesions having been found healthy.

Brain.—As a rule brain changes have been described as "hyperæmia," "anæmia," œdema, etc., and rather indefinitely, hæmorrhages are frequently seen.

Lung.—Shows sub-pleural ecchymoses in some cases and is always congested.

Spleen.—Hæmorrhages are frequent and often extensive.

The Heart is more hypertrophied than is usual in gravidæ Schmorl found certain cells evidently placental in origin in the cardiac cavities and in the lungs, also in the track to these parts from the placenta. Acconci, however, found similar cells in the heart and lungs of gravid rabbits on which he had caused convulsions by injections of carbonate of ammonia, but as migrated placental cells are not a *sine qua non* of Schmorl's theory, these results do not much affect it. Schmorl has been able to produce extended thromboses in rabbits by injecting into them emulsion of placenta.

Valhard found that injecting urine secreted after eclampsia had ceased, caused thrombosis in rabbits.

Kollman finds that the serum of eclamptics is unusually rich in fibrino-plastic matters. The fœtal and maternal lesions are often identical (Cossaet, Chambrelent, etc.)

Etiology of Eclampsia.—For purposes of discussion it is sufficient to consider the views held as to etiology as mainly two : 1. Microbic, 2. Toxic. The view known as the "Traube Rosenstein Theory," that one attributing the fits to congestion of the brain, to "exalted nervous tension," or "essential neurosis," I do not think it will profit us to consider in the present state of the question.

The Microbic Theory.—This view finds some support in the apparent epidimicity which is sometimes seen in the incidence of cases, and in the fact that numerous observers (Dolens, Jurgens, etc.) have found micro-organisms—albeit various ones—in the blood and urine of eclamptics. The opinion of Gerdis that the illness is due to a specific micro-organism gaining entrance by the uterus, and probably by means of pre-existing endometritis, and that the anatomical lesions found are the result of the microbic toxins, is perhaps, the least unlikely.

The pathogenic nature of the organisms found by Gerdis and others has, nevertheless, had, to say the least, considerable doubt thrown on it by the failure of other observers to find the same organisms or to find any at all, and by other criticisms, *e g.*, Gerdis' experiments were not undertaken until fourteen to twenty-three hours after death, and Hoffmeister believes Gerdis' bacillus to have been merely proteus vulgaris. "There is not a definite microbe isolated by culture and reproducing the illness." —*Pilliet.*

The Toxic Theory.—This theory does not, I take it, differ very essentially from the older uræmic theory ("which is exploded") which taught that the woman was poisoned by poisons retained in her system owing to Bright's disease. We know now that it is not the ordinary Brights' disease, but the essential part of the theory—the toxæmia—remains, as does also, to all intents, the idea, that is. an auto-toxæmia The toxic theory now receives much support from experimental proof of the following statements : 1. The blood of eclamptics does contain excess of toxic matter ; 2. The urine of eclamptics contains less toxic matter than that of healthy gravidæ ; 3. The toxicity of the blood (serum) of eclamptics and of their urine is inversely proportional, and after convulsions have ceased there ensues a time during which the urine is hypotoxic. It is experimentally demonstrated, also, that the serum of healthy gravidæ is more toxic than that of non-gravidæ and their urine less so, a fact which indicates that in pregnancy there is increased production of toxins, or deficient elimination of them, or both.

Time will not permit me to quote authors more in detail on this point, the results are chiefly those of Ludwig and Savor, Bouchard, and others.

"The state of pregnancy was, according to Ludwig and Savor, a circumstance singularly predisposing to auto-intoxication, in the case of every pregnant woman there was hyper-toxicity of the blood and hypo-toxicity of the urine."—*Cheenisse.*

In connection with these valuable results of Ludwig and Savor, it is pointed out by Volhard that they leave yet much to seek. They do not show that the toxins in the blood and urine are identical. Volhard's own experiments with the urine and serum of gravidæ and non-gravidæ often gave contradictory results, and he found that in "néphrite gravidique" without eclampsia the urine might be equally toxic with that of eclamptics. He (Volhard) believes that when eclamptic serum kills the animal into which it is injected, it is above all by means of thrombus formation.

Pilliet notes that Ludwig and Savor's results do not show what the poison is that causes the auto-intoxication, nor what special lesion it causes, neither do they show why it is retained or whether it be a poison from within (autotoxin), or without. In connection with the last-mentioned alternative, Clifford Albutt and Herman have pointed out that the similarity of some of the signs and symptoms of eclampsia to those of acute poisoning by lead and by phosphorus, and also the quick, sudden onset of the symptoms of eclampsia in some cases, tend to indicate that the poison may be from without. In support of the idea of toxæmic condition of pregnancy, Clifford Albutt remarks that many of the phenomena of that state seem to bring it into some comparison with the toxic. In pregnancy, he says, we have headaches, vomiting, faints, nervous irritability, albuminuria, etc., occurring frequently, symptoms, most of which are common in the infections. "Can there be any agent more directly concerned in these than heightened nervous excitability?" He points out that we do not usually draw the same conclusions from these symptoms in pregnancy as we would in *e.g.*, scarlatina, because we are possessed by the prejudice that pregnancy is a natural state, which no doubt it usually is. The fallacy of this attitude of mind does not, I think, need further allusion.

However it be with these considerations the view chiefly held to-day is that the toxæmia of eclampsia is an auto-toxæmia, and now the question is where and why are the toxins formed and why not eliminated? Are they the ordinary results of maternal and fœtal metabolism? Are they special poisons from the placental site or from the fœtus? Are they absorbed from the bowel? So far as my limited reading goes, the question as to whence the poisons (assumed?) come has had little direct light thrown upon it. That they come from the fœtus seems probable from the great amelioration of the symptoms that usually accompanies fœtal death, and the same applies more or less to the question of their placental origin, but how does this explain the *post-partum* eclampsia and eclampsia with a dead and even macerated fœtus? If absorbed from the bowel as some think, there remains much to be explained before we can see why eclampsia should be a disease peculiar to pregnancy.

If we look upon the anatomical changes and the occurrence of convulsions as consecutive effects of the same poison, acting thus in a sort of "vicious circle," causing lesions which interfere with its own elimination, and convulsions by its retention and accumulation, the explanation is more easy, perhaps, than probable, and it would be unlikely that under these circumstances a woman could recover ante-partum as they sometimes do.

It is very evident, in view of the damage to the liver, "that great neutralizer of poisons," and of the great anuria commonly seen, that any poisons normally dealt with by these organs are likely to be insufficiently eliminated.

It is here that the theory of Schmorl, "a coagulating substance," causing the physical damage in the first place, seems, perhaps, to fit in the most comfortably with the facts.

Case I.—Mrs. X., primipara, *æt.* 18.

Family history unimportant.

History of Attack.—Nothing abnormal had been noticed by her attendants until labour came on. She was delivered about 36 hours before I saw her, and a few hours after delivery commenced taking convulsions rapidly.

Condition on being seen by me.—She was deeply comatose and had a death-like pallor; there were slight clonic twitchings of the limbs, and the head was thrown alternately from side to side. Skin dry, tongue furred, pulse 140 and irregular, temperature 103°. No urine had been passed for at least twenty-four hours. On uncovering the abdomen I was struck with the extremely firm contraction of the uterus, which was standing out under the abdominal wall in a most marked manner and was excessively hard. The attendants made some remark about "that lump being always there"; the bed-linen and the woman's genitalia were free from all trace of hæmorrhage. I made no inquiries about the amount of the latter, but it was probably very small. The bladder was emptied by catheter; it contained four ounces of urine, which was almost solid with albumin when boiled. There was no œdema. The woman was evidently dying rapidly. In this case I had no knowledge of its nature until I saw it, and as it was four hours journey from my residence, I was, therefore, not fully prepared. Some digitalin was injected hypodermically, and in a few minutes a dose of pilocarpine; the pulse was, however, not altered. Free perspiration followed, and also an alarming increase of the tracheal rhonchi; there was very soon a large bulb of froth issuing from mouth and nostrils and drawn in again on inspiration. In twenty minutes the sweating and bronchorrhœa had ceased, but there was not the least improvement in the general condition. Further treatment was deemed useless. Patient died in about an hour.

This case may be of interest as being one left practically untreated until moribund, and as furnishing one more instance of the possible ill-effects of pilocarpine. It was treated in 1893, when pilocarpine had not the record in eclampsia that it now has.

Case II.— Mrs. X., primipara, *æt.* 21.

Family History.—A sister died of eclampsia, and patient was apprehensive of it.

History of Illness—Some œdema of ankles commenced about the fifth month of pregnancy. She was first seen by me in the eighth month; there was œdema of legs and body, none of the face; urine diminished in quantity and contained about one-sixth albumin. The abdomen was unusually large. Patient was somewhat hysterical. She was put upon milk diet, a mixture of perchloride of iron, an occasional laxative, and rest enjoined. The œdema gradually increased, and the albumin became more in quantity. On the day before labour came on, I was obliged to incise the enormously swollen labia, the urine was about 15 ounces in 24 hours, and was about one-fourth albumin; urea was not estimated.

Labour came on naturally on August 2nd. When the head was well down I delivered with forceps as some cerebral symptoms appeared to be developing. The child was living and appeared healthy. The placenta followed naturally, and the uterus contracted down very firmly and remained so. There was quite a minute amount of hæmorrhage, certainly not more than a tablespoonful of blood being lost during the whole case.

August 3rd.—Urine and albumin about the same in quantity as on the day before delivery, uterus still firmly contracted. To continue milk diet, iron, and a laxative given.

August 5th.—Convulsions of the usual kind came on about 3 p.m. When seen by me two hours later she was having them every three or four minutes. Speech wild, incoherent. Temperature 102° ; pulse 100. Urine (not measured) very scanty and solid with albumin. There had been no lochia. There had been several motions. I irrigated the uterine cavity with carbolised water. Injected ½ gr. morph. hyd. hypodermically, and as there was no result in twenty minutes injected another ½ gr. in another twenty minutes I gave gr. xxx. chloral hyd. by mouth and fifteen minutes later another xxx. gr. It was not until seventy grains of chloral had been taken that the fits ceased and she fell asleep. I remained with her all night, and though she was deeply narcotised, and there were none of the obvious motor manifestations of eclampsia, yet I am quite certain that there were at intervals during the whole night evidences of "nervous explosions" or whatever they should be called—*e.g.* the breathing became more stertorous, strong expiratory stertor shewing contractions of the faucial muscles, the face took a darker flush and the pulse became more rapid and harder. Respirations remained at 15 during most of the night. I packed her well with hot bottles in a sock wrung out of hot water, twice during the night, but there was no sweating. After twelve hours, *i.e.* at 6 a.m., patient opened her eyes and stirred, but was completely unconscious; œdema had increased during the night, pulse was 140. In a few minutes she went into an ordinary convulsion, a whiff of chloroform was given. After some difficulty I obtained leave to bleed her as a last resource, before it could be done she had another fit, the pulse was now 150 to 160 and getting irregular, and the respirations had increased to 22 and were shallow and catchy.

I opened median basilic vein but nothing I could do would induce more than a drachm or two of blood to flow. Opened the other median basilic and by immediately slipping my thumb along the vein kept a very minute flow going, and this gradually increased till in a few minutes I could get a good squirt each time I milked it along the vein. After removing what I judged to be six or seven ounces in this way I desisted as I thought patient seemed weaker and was afraid she might die too soon after the bleeding (reasons not entirely disinterested). There was another convulsion just as I had finished bandaging the arm.

I was at this stage obliged to leave the case. Before leaving I percussed over the bladder, and believed it to be empty, and finally, *i.e.*, about ten minutes after the last fit, found a slight improvement in the pulse (145), and, perhaps, a little more regular. About half an hour after I left she had another fit, which was the last. August 6th she was better in every way, and conscious enough to swallow what was put into her mouth. She was given digitalis, æth. nit., and chloral. The bladder contained ten ounces of urine, which showed only a small cloud of albumin.

By August 8th the albumin had again increased to about one-fifth, and patient was restless and somewhat delirious. Six leeches were applied over the kidneys, and their bites well sponged. Next day the urine could be collected and was twenty ounces, and albumin less than the previous day. Recovery was slow, and albumin remained in the urine for six months. I have since attended patient in a normal confinement.

This case may be of some interest from the fact that it furnishes some evidence of heredity, or, more likely, of nervous influence, and on account of the length of time after delivery before the fits came on. As to treatment, I am by no means certain that the counter-poisoning by chloral gave the patient any better chance of recovery, and cannot say whether the small bleeding practised was a cause of the improvement, or came at a lucky time merely. It is certain that the improvement in the pulse did not commence till the blood had been removed.

Case III.—Mrs X. *æt.* 29, primipara.

Family history unimportant.

History of Illness.—Some œdema of ankles had been noticed for about six weeks prior to confinement.

Labour came on, at term, on September 9th. When I saw her she had had two convulsions, the last one about an hour before my arrival. She had œdema of legs and body. I could not get any urine to examine. Her mental faculties were much dulled, but she was not comatose. The os was well dilated, and I delivered her of twins. The placenta followed naturally and there were from three to four ounces of blood from the uterus. The uterus contracted down very firmly and remained so during the whole progress of the case. Two hours after delivery, as there had been no convulsions for four hours, I considered it safe to leave her. Her temperature was then 99°, pulse 110. Bowels acted freely during the day from castor oil. To take milk diet and drinks of water and be kept quiet.

An hour after I left convulsions came on again and she had eight or ten in about ten hours, after which they ceased but she remained comatose. When I saw her the second time there had been no convulsions for two hours, she was quite unconscious, and had slight twitching of the limbs. Though naturally of a ruddy complexion, she had now a deathly pallor. Pulse was practically uncountable, I made it 175. Temperature 103°, respirations 40 She seemed extremely weak, there had been no lochial discharge at all. She had had continuous diarrhœa since the previous day, but her attendants were sure there had been no urine. I emptied the bladder by catheter; it contained from 20 to 25 ounces of very black urine which was nearly solid with albumin. I opened median basilic vein but found it impossible to get more than a drachm or two of blood to flow, and as I was afraid she might die at any moment, I did not care to push the venesection business too far. A pint and a half of warm normal saline was injected into the cellular tissue; it did not appear to be absorbing at first. Half an hour afterwards there was a little improvement in the pulse 150 to 160, and the injection had absorbed a little The temperature was 98·6°; this reduction may have been due to exposure during the injection.

At this stage I was obliged to leave the case. Instructions for hot packing were given, and a mixture of æth. nit. and digitalis to be given if it was found that she became able to swallow.

I did not see patient again, but according to herhusband who brought me messages concerning her, she remained unconscious for about thirty hours after I left, when she suddenly tried to get up and asked for the chamber vessel which she "quite filled" with urine: the amount had not been measured as my instructions were misunderstood in this particular, but diuresis had evidently been free. Patient recovered.

A circumstance, perhaps, worth mentioning in connection with these three cases is that they were all in a small and thinly populated corner of my district. I may mention, in addition, that a neighbour of No II. has recently been under my care with "renal disease of pregnancy" and was, I believe, only saved from eclampsia by a timely abortion; she was admittedly apprehensive of eclampsia, and when her albuminuria came on was living right away from the scene of these three cases, Another circumstance of possible significance is the continued tonic retraction of the uterus, which might be supposed to increase the amount of extractives entering the circulation from it.

It may be asked why did I consider bleeding a suitable treatment for No. III.

The chief reason was to make the saline absorb better and thus dilute the poison more effectually. Moreover, I take it that it is almost as rational to make a poisoned blood vessel vomit some of its contents as to similarly treat a stomach, and this brings one to the question of treatment on which I must be but very brief.

Prophylaxis.—To diminish tissue waste and stimulate the emunctories, as by rest, milk diet, and suitable drugs seems to be generally accepted as suitable treatment

The question of induction of premature labour as a preventive, turns much upon ethical considerations, and will, no doubt, be decided by each practitioner for himself. There can be no doubt as to its usefulness as a means of cutting short the disease.

Treatment.—Accelerated delivery as a means of ending the fits. It is not difficult to find advocates of this procedure It has, however, some decided enemies, notably Herman, who stigmatises the maxim, "deliver as quickly as possible" as "pernicious." In Schaute's statistics, 185 cases, the fits ceased on delivery, in 33·5 per cent. In Schreeber's 105 cases they ceased on delivery in 62 per cent. These facts are used by Herman to show that "the disease follows the one course about as often as the other."

Of morphia, chloral, and chloroform, the greatest favourite seems to be morphia. Veit treated 60 cases with two deaths with morphia. The great objection to statistics of narcotic drugs is that they would probably never be used in comatose cases Stimulating the bowel, kidney, skin, etc., is rational if all these organs are concerned in eliminating the poison.

If saline injections are good, surely Dr. Jardine's method of making it diuretic with *e.g.*, pot bicarb., should be better, especially if, as he claims, it greatly increases the urea excreted.

(For discussion on this paper see page 301.)

BRITISH MEDICAL ASSOCIATION.

NEW SOUTH WALES BRANCH.

A General Meeting of this Branch will be held at the Royal Society's House, Elizabeth Street, Sydney, on Friday, 26th July, at 8.15 p.m.

Business:—Election of Councillor and General.

G. T. HANKINS, Hon. Secretary.

A NOTE ON GENERAL PARALYSIS OF THE INSANE.

By ANGEL MONEY, M.D., F.R.C.P. LOND., SYDNEY.

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AN excellent article is that by Edwin Goodall in Vol. VII. of "Clifford Allbutt's System." But I confess to being unable to follow this paragraph :—"The characteristic bodily symptoms may exist for long periods without any evident mental affection; but I do not recognise a general paralysis apart from that of the insane. We meet, indeed, with many cases in the public hospitals presenting all the physical signs of general paralysis, in which there is no sign of insanity, yet, if these patients live long enough, they will fall into some degree of dementia."

To read, mark, learn and inwardly digest this passage lands me to the conclusion that Dr. Goodall commits the fallacy of *non sequitur*. I find no difficulty in understanding that mental symptoms should be entirely absent even unto death, that general paralysis may run its course as a physical affection, therefore that one must recognise a general paralysis apart from that of the insane. The cerebral cortex is constructed of well-arranged forests or orchards of nerve trees, some of them so well built that they cannot be ringbarked by alcohol, syphilis, or any known cause of decay. Undoubtedly some mental neurones are so thoroughbred, even in epileptics, that the passage of repeated whirlwinds or hurricanes of disturbed nerve force causes no more than a little temporary laming of their powers. Therefore I conceive that even the legacy of syphilis may cause decay only of some kinds of nerve trees, and not of others. Alcohol may leave intact the mentation, whilst destroying the powers of movement of an individual, and my reading of such a case would be that the motor neurones were built of less stern stuff. If we are such stuff as dreams are made of, doubtless even alcohol may destroy the functions of the mind trees. But if, like ambition, we are made of sterner stuff, then even the powerful poison of past syphilitic disease may fail to cause decay of the highest parts of our nervous system. I knew a man capable of imbibing great quantities of alcohol, whose chief symptom of drunkenness was manifest in an inability to brush his teeth. I met him aboard ship, and his powers of trunk and lower-limb maintenance of equilibrium appeared to be perfect. The nerve trees subserving the upper limbs seemed to be composed of poorer material than those concerned in the rest of the body.

PROCEEDINGS OF BRANCHES.

QUEENSLAND BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

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A GENERAL meeting of the Branch was held on Friday, July 5th, the following members being present :—Dr. Taylor (president), Drs. Francis, Connolly, Robertson, Hopkins, Sutton, Flynn, Lightoller, Lockhart Gibson, Wield, Orr, Hawkes, Halford, Kerr Scott, Dixon and Brockway (hon. sec.)

Dr. CONNOLLY exhibited an infant, in whose family history there was no syphilis, with a sore at the angle of the mouth and sores round the anus, simulating the appearance of adult tertiary lesions.

Dr. HAWKES exhibited a uterus removed for cystic fibroma, the growth being so soft as to simulate fluctuation even after removal.

Dr. HAWKES exhibited a case of double lamellar cataract, with the following history :

John J., *æt.* 19, had convulsions at age of three; sight defective since, being unable to see but little in a bright light and very imperfectly in the shade. Vision=fingers at 4 ft., and J16 with difficulty (is almost illiterate). Has double central lamellar cataract. The clearest parts of the periphery of the lenses were down and in. On November 27th, 1900, an iridectomy down and in, was done on the left eye; On December 13th, 1900, a similar iridectomy on right eye. The results have been satisfactory :

Right eye, with 2·5, $\frac{6}{12}$
Left eye, with 3, $\frac{6}{30}$

and reads J1 without glasses at ten inches. The cataract being almost entirely central in right eye, though rather less so in the left, made it a suitable case for iridectomy instead of needling, and the result of V $\frac{6}{12}$, with retention of his powers of accommodation and capablility of reading J1 without glasses has justified the choice.

Dr. ROBERTSON exhibited a case, reported in his paper, with a strident, brassy cough. (To appear in a future issue.)

Dr. SUTTON reported a similar case, which made no improvement under the usual treatment, but yielded at once to painting with paw-paw juice.

The PRESIDENT reported a similar case, in which spraying with cocaine produced a cure.

Dr. HAWKES reported two cases, one of which recovered coincidentally with the passage of a tapeworm, and the other with the vomiting of roundworms.

The SECRETARY reported the adoption by the Council of the resolutions passed by the New South Wales Branch with reference to the reorganisation of the Association, with the exception that they would limit the expulsion of members by Branch Councils from their Branches only, reserving the right of expulsion from the Association to the parent Council.

It was resolved that the Council consider the question of a change of room, and report thereon to the next meeting.

Dr. Meek was elected a member of the Branch, and Dr. Macdonald (Rockhampton) and Dr. Eleanor Greenham (Brisbane) were nominated for membership.

Dr. ROBERTSON read a paper entitled "Cough in Relation to Diseases of the Throat," which, with the discussion thereon, will appear in a future issue.

Dr. FRANCIS read a paper entitled "A Simple Method of Removing Post Nasal Polypi," which, with the discussion thereon, appears on page 293.

Dr. HAWKES read a paper entitled "Symptoms in the Upper Respiratory Tract, Associated with General Disease," which, with the discussion thereon, appears on page 293.

A SIMPLE METHOD OF REMOVING POST-NASAL POLYPI

By Alex. Francis, B.A., M.B., B C. Cantab.,
Brisbane.

THE method of removing post-nasal polypi that I have devised is so trifling that it would not be worthy of a description were it not for the fact that these growths are comparatively common here, and that sometimes great pain and discomfort are caused by their removal. The usual method, I believe, is to pass a long loop of wire attached to a snare down the nostril whence the polypus springs, and then spread it over the polypus with a finger in the post-nasal space. This is very simple and satisfactory in theory, but anyone who has experienced the sensation of another's finger in the post-nasal space can appreciate the suffering of the unfortunate patient who has to submit to a stiff wire loop, that has been almost straightened out in its passage through the nose, being spread over a polypus that is so large as to barely leave room in the space for the operator's finger. These polypi can grow to an enormous size. One of those I show here was so large that when cut off the lad could not eject it from his mouth without assistance.

My plan is as follows: Pass a small, soft-rubber catheter, to the end of which a length of silk is attached, along the floor of the nostril on the affected side. Seize the end of the catheter as it emerges from behind the palate with a pair of forceps; cut the silk, and, retaining it, withdraw the catheter. Tie the mouth end of the silk to the end protruding from the nostril. Repeat the operation, only make sure that the catheter this time passes above the neck of the polypus. Release the end of the second silk, and withdraw the catheter. Then tie together the two mouth ends of the silks, and draw gently on the nasal ends. It is well to see that the loop thus made passes up, well against the side of the pharynx, to which the polypus is attached in the nose. We thus get a silken thread round the pedicle without having interfered with the polypus in any way. Next heat the last inch of a long piece of snare wire to take the temper out of the steel; make a small eyelet in the end and tie on one end of the silk. By gently pulling on the free end of the silk and easing the wire into the nose, the wire is passed round the pedicle. Thread the wire ends into a Jervis snare, and slowly wind off.

The only painful part of the operation. I found was pulling the stiff wire round the bend at the pedicle, but by taking the temper out of the end of the wire as I have suggested, the transition from silk to wire is not noticed. The astonishment and delight of a patient who has been previously operated on by the old method, when the polypus now slips back into his mouth, are my justification for taking up your time to-night with such a small matter.

The **President** corroborated Dr. Francis' experience of the difficulty and painfulness of the ordinary method of operation.

Dr. **Lockhart Gibson** said that in speaking of older methods of operating on post nasal polypi Dr. Francis had not mentioned Chiari's post nasal snare. Chiari of Vienna had taught him the use of this snare as long ago as 1884. It is an ordinary Wild's snare, with a slightly longer tube bent to adapt it for use in the naso-pharynx. He, Dr. Gibson, knows of no simpler operation for one accustomed to work by sight in the naso-pharynx than the removal of large or even of small post nasal polypi by this snare. He finds such polypi to be not uncommon, to be generally single, and to generally have a narrow pedicle. He ties forward the palate with "feeder tubing" after cocainisation, which, though a little disagreeable, is quite devoid of pain. A laryngeal mirror is used for guiding the snare, whose loop is bent slightly forward. The end of the loop is guided between the anterior surface of the polypus and the posterior nares, while the point of the snare with the neck of the loop is pushed gently upwards behind the polypus, and then forwards. The loop is enticed as far towards the pedicle as possible, and when finally tightened, a little traction, exerted chiefly upon the tube when it lies within the mouth, detaches the polypus, which comes away in the loop. He knows of no operation for polypi in any part of the nose which is a cause of less discomfort to the patient. He recorded some years ago the case of a boy aged seven, whose remark after a very large polypus had been removed in this way was: "I can breathe now. It didn't hurt." He expressed his conviction that if Dr. Francis adopted Chiara's snare for use in these cases, he would find it entirely satisfactory.

Dr. **Francis**, in reply, thought that the plan recommended by himself was less painful than that of Chiari, in that it did not necessitate the forcible tying forward of the palate.

SYMPTOMS IN THE UPPER RESPIRATORY TRACT, ASSOCIATED WITH GENERAL DISEASES.

By C. S. Hawkes, M.R.C.S. Eng., Etc.,
Brisbane, Q.

Read before the Queensland Branch of the British Medical Association.

AMONGST the earlier symptoms in certain general diseases, there are some—a few common, others rare—which have their seat in the upper respiratory tract, and which consequently are of importance in attracting early attention to general conditions that might otherwise possibly be overlooked. In a short paper it is impossible to discuss, in any way completely, all the conditions that may give rise to naso-pharyngeal or laryngeal symptoms, so I shall confine my remarks to those that are perhaps of greatest importance and also of interest in being perhaps somewhat uncommon.

Taking first nose-bleeding, a common enough condition one may say, but yet occasionally of considerable diagnostic importance. Nose-bleeding in people past middle life is always important, especially if severe and recurrent. In a very interesting paper by Coates (*Lancet*, April 20th, 1901) on the cause of epistaxis in people past middle life, he records a series of cases, and draws from them certain deductions, chiefly that nose-bleeding in these cases is associated with either a high tension pulse, or else a heart that is just on the point of failing, and a valvular insufficiency just commencing, when the venous system becomes engorged and a vein gives way. Some few years ago I had a very good example of this: A florid stout woman of about 50 consulted me because her nose had taken to bleeding profusely and frequently. There was no local condition in the nose that I could discover, but I found that though she considered herself in exceptionally robust health, and had been doing an extra amount of work on that account, yet she had thickened arteries, a high tension pulse, hypertrophied heart with an apical systolic bruit and slight albuminuria. Under general treatment the bleeding ceased and the apical bruit disappeared. I lost sight of her for a year or two, then I heard the nose-bleeding had returned, and later she had an attack of apoplexy. Here the onset of nose-bleeding was coincident with the commencing failure of an overtaxed heart. In these cases I do not think it advisable to plug the nostrils, more probably the loss of some ounces of blood from a circulation that is already overtaxed, is beneficial rather than otherwise, and as Coates points out it is more logical to diminish the peripheral resistance by nitrites or nitro-glycerine, and stimulate the heart with strophanthus or strychnine, than to merely plug or otherwise occlude the bleeding vessel.

One of the most profuse cases of epistaxis I ever saw was of this nature. It began suddenly in an apparently healthy old farmer of 60 after a rather heavy day's work. He bled, with intermissions, for about a week. Plugging the nostrils stopped the bleeding for a time, when the plugs were removed it started again; it stopped eventually after free purgation with salts. He had degenerated arteries and albuminuria, and apparently the bleeding was the first sign of a general break up, for he died of apoplexy a few months later. Some patients seem distinctly improved by the bleeding. A short, stout lady of 50 whom I see at intervals has had an hypertrophied heart and high tension pulse for the last five years, perhaps longer. As long as her nose bleeds now and then she feels comfortable, if it does not then she gets headaches and her head feels full and giddy, when she comes and gets bled from the arm to the extent of 12 or 15 ounces, which relieves her for about six to nine months. She has been bled in this way now four times much to her own comfort. Bleeding in these cases may not be confined to the nose, in rarer cases the source may be in the pharynx, probably from dilated veins, and occasionally from the gums.

Bleeding, as a symptom of importance, is not confined to the middle age, it is not uncommon in young people with serious heart lesions, perhaps especially with mitral stenosis. In one case of mitral stenosis I saw in a girl of 17, the bleeding from the nose was the first indication of circulatory failure and recurred on several occasions whenever the cardiac power got a little below par. A very interesting case was brought to me some three years ago because of nose-bleeding. The patient was a boy of 10, the parents brought him because during the previous six weeks his nose had taken to bleed freely and frequently and just the preceding week there had been some oozing from the gums close to the teeth. The boy was said to have been in perfect health up to about six weeks before I saw him. He was decidedly anæmic and flabby looking. I found his spleen somewhat enlarged, and an examination of the blood shewed the case to be one of splenic leucocythæmia from which he eventually died.

Passing on to the pharynx, we find there at times a condition that is not only very intractable to local treatment, but is also symptomatic of other more general lesions. I refer to the forms of pharyngitis associated with diabetes and albuminuria; the two diseases have to be taken together, for as far as the pharyngeal condition goes, there is nothing in one more characteristic of one than the other. Garel (Annal des Mal, de l'Oreille, February, 1895), who first investigated this condition, minutely described twenty-one cases of his own, in which a pharyngitis was the first indication of either diabetes or albuminuria. The pharyngitis starts as a chronic hyperæmic form. "The first thing they complain of is a certain discomfort in the throat, and a slight difficulty in swallowing their saliva, a stickiness round the base of the tongue. There is congestion of the mucus membrane of the pharynx fauces and soft palate" (abstract Practitioner, vol. LXV., No. 1). The mucosa may even be much swollen, is irritable, sensitive, and coated with mucus. This may pass on to a dry, glazed state, forming a typical pharyngitis sicca. Possibly this condition would be found more frequently if looked for more often; within the last year or so I have notes of three such cases where the pharyngeal condition was what troubled the patients most and caused them to seek advice. The first case was a big, fat, middle-aged woman, who came complaining of her throat being dry and uncomfortable. The pharynx was red and irritable, with a little scanty secretion, reminding one very much of a heavy smoker's throat. Local treatment did little or no good till one day she mentioned that she was much troubled with vulval irritation. Examining the urine showed the presence of sugar, and with the general treatment directed to the glycosuria, the pharyngeal trouble subsided without further local measures.

The second case was a wasted man with a constantly dry throat. The pharynx looked shrunken and glazed, with a little, scanty, sticky secretion. From his other symptoms it was obviously a case of diabetes, which the examination of the urine confirmed. Under diet and free doses of codeia his throat was much more comfortable, moister, and less irritable, though it never became quite normal

My third case was an overworked business man of 52, a non-smoker and abstainer. He complained that his throat was uncomfortable for the last year or so, a little secretion and some stiffness in swallowing the first thing in the morning. Local treatment had been used perseveringly for about nine months before I saw him but without any benefit. His pharynx varied considerably according as to whether I examined it in the morning or at night. In the morning it was more swollen, but less red; in the evening redder, but less swollen. The swelling was not at all marked; chiefly the pillars of the fauces seemed thicker, and the pharyngeal mucosa more succulent; in the evening it was drier and redder. I found he was ageing rapidly, with failing brain power, his eyelids puffy in the morning, thick arteries and albuminuria. Under general treatment he improved considerably, and the throat became much more comfortable but not quite free from discomfort.

Time prevents discussion of the rarer lesions, such as pharyngeal ulcers in diabetes, and the laryngitis secca of pregnancy, or opening up the wide and interesting relations of tonsillar affections to rheumatism—a relationship more of importance now than before, seeing that the researches of Poynton and Paine seem to have transferred the bacteriology of rheumatic fever from a probability to a certainty. Few local conditions in general diseases are more looked for, and deservedly so, than a laryngeal affection in phthisis, and the importance of its early recognition cannot be over-estimated. Either as an early manifestation or a late complication, a laryngeal tuberculosis occurs in about 30 per cent. of all cases of phthisis. Amongst the earlier symptoms of the laryngeal condition, and one that most frequently attracts attention, is an alteration in the voice. Lennox Browne has pointed out that the voice change is very characteristic owing to the rapidity with which the voice changes in character from a gruff hoarseness to a high falsetto and again to a toneless whisper even in the course of a short conversation.

Just as important as in phthisis is the examination of the larynx in cases of suspected thoracic aneurism, of which it may be the earliest and indeed almost the only symptom. As a rule the lesion noticed is a paralysis or paresis of the left vocal chord, due to pressure on the left recurrent nerve; more rarely the right nerve is involved, usually in the sac of an innominate aneurism. Occasionally only a very slight, almost imperceptible, paresis of the cord may be present, associated with a change in the character of the voice, which becomes of a peculiar hoarse "cracked" character. A change in the character of the voice and cough in an adult is, as a rule, of the highest importance and should always lead to the closest investigation as to its cause. Within the last six months I have had two cases of thoracic aneurism where the earliest or predominating symptom was the laryngeal affection. The first was a man of 38 who believed himself to be in good health except for some pains in the chest which he put down to dyspepsia. After a few days rather free living in town following on a previous abstemious and regular country life he noticed his voice was getting "cracked," so he came to find out the reason why. I found a paralysis of the abductors of the left cord. He had the peculiar "cracked" voice so characteristic of this lesion, and the typicial "brassy" cough so often associated with thoracic aneurism. On examining his chest I found an unmistakeable and hitherto unnoticed thoracic aneurism with an aortic valvular lesion. Three months later the aneurism eroded into a bronchus and killed him.

The second case was a short stout man, who complained only of an irritating cough, which nothing would relieve, and some hoarseness. There was some slight loss of action of the left cord, but nothing definite could be made out in his chest. Later he showed more evident signs of aneurism, which eventually burst into the trachea and killed him.

In many conditions we are hard put to know what early sign or symptom may be of diagnostic importance in establishing a diagnosis; though perhaps the upper respiratory tract does not offer as many symptoms as some other parts, yet even those few may be at times of sufficient importance to justify their study and observation.

The **President** thanked Dr. Hawkes for his interesting paper, and recorded a case of a patient who for three successive nights had severe hæmorrhage "from the lungs" with no apparent effect upon his health.

Dr. **Francis** remarked upon the peculiar waxy pallor spreading from the cords over the false cords, which was very characteristic of incipient phthisis, being present long before the stethoscope discovered any lesion in the lungs, though the symptom was no indication that the patient would eventually suffer from tubercular laryngeal trouble but from disease of the lung itself.

Dr. **Robertson** narrated the case of a stout lady with an hypertrophied heart who had frequent relieving attacks of epistaxis, and who eventually died from apoplexy. He remarked upon the raw, shiny red tongue of diabetes, and instanced cases of hæmorrhage, apparently from the lungs, which were due to a small ulcer on the nasal septum caused by the habit of picking the nose.

Dr. **Lockhart Gibson** narrated a very interesting case of severe and debilitating hæmorrhage, diagnosed as from the lungs, which, in his opinion, corroborated by the subsequent rapid return to continuous and robust health, with six inches of chest expansion, had been due to high blood pressure, and the consequent rupture of a vessel in the pharynx.

Dr. **Hawkes**, in reply, agreed with Dr. Francis as to the great importance of the early sign of phthisis mentioned by him, and said that the typical appearance of the tongue in diabetes was a later sign than that of the pharynx.

Hudson's "Eumenthol" Jujubes (Registered) are a Gum Jujube containing the active constituents of well-known Antiseptics, Eucalyptol, Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-Borate of Sodium, etc., and exhibit the antiseptic properties in a fragrant and efficient form. Sold by all chemists, tins 1s. 6d. Are Antiseptic, Prophylactic, reduce Sensibility of Mucous Membrane.

Mr. W. A. Dixon, F.I.C., F.C.S., Public Analyst of Sydney, after making exhaustive tests, says: - "There is no doubt but that "Eumenthol" Jujubes have a wonderful effect in the destruction of bacteria and preventing their growth. . . . I have made a comparative test of "Eumenthol" Jubjues and Creasote, and find that there is little difference in their bactericidal action."

SOUTH AUSTRALIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

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The twenty-second annual meeting was held at the Adelaide University, on Thursday, June 27, 1901, at 4 p.m. The retiring President (Dr. Brummitt) took the chair at 4 p.m. Present: Dr. Brummitt (President), Henderson, C. Hamilton, Plummer, Cleland, A. A. Hamilton, Watson, Lendon, Gault, W. Hayward, J. C. Verco, Marten, Sweetapple, Todd, F. Magarey, Gregerson, Poulton, Harrold, T. W. Corbin, Shone, J. Evans, Symons, and Hon Sec. (J. B. Gunson). Visitors: Dr. Makin and several medical students.

Agenda.

Minutes of last annual meeting, read and signed.

Annual Report of Council and Treasurer's Statement were both adopted.

Election of Council.—The following members were all duly elected:—For Vice-President Dr. Archibald A. Hamilton; for Hon. Treasurer, Dr. W. T. Hayward; for Hon. Secretary, J. B. Gunson; for Ordinary Members of Council (3), Drs. M. Jay, Otto W. Smith, and W. R. Cavenagh-Mainwaring. (The President-elect (Dr. C. E. Todd), and Retiring President (Dr. Brummitt) being members *ex officio*.

Election of Parliamentary Bills Committee. Committee was re-elected.

Election of local editor "*Australasian Medical Gazette*. Dr. Gunson re-elected.

Presidential Address.—Dr. B. Brummitt delivered his address (see page 261), and having thanked members vacated the chair, which the newly-elected President (Dr. Todd) then occupied.

Votes of thanks to retiring officers and to the Council of the University were then carried.

Twenty-Second Annual Report of the Council, June, 1901. (Adopted).

During the past year the membership of the Branch has been maintained satisfactorily, and our financial position is sound.

Death has removed two from us—Dr. Robert Stewart and Dr. S. J. Magarey—both prominent and able members of the Branch.

One or two members have left South Australia: several have gone to South Africa and there gained distinction for themselves and for the Commonwealth.

Seven new members have been elected.

Members have considered the proposed new Constitution of the Association, and our resolutions, forwarded to London, are now under consideration by a special Sub-Committee, which includes our representative on the General Council.

Our Address to H.R.H. the Duke of Cornwall and York is in preparation.

Our thanks are again due to the University Council for the use of rooms for all our meetings.

The following papers have been read during the year:—

Drs. Poulton and Stewart—Perforating Gastric Ulcer, and Operation.
Dr. Poulton—Tumour of Coccygeal Gland.
Dr. Swift—Foreign Body in Stomach.
Dr. Marten—Hernia into Foramen of Winslow.
Dr. Hayward—Case of Intestinal Obstruction.
Dr. Evans—Dystocia due to Fœtal Rigor Mortis.
Dr. J. A. G. Hamilton—Hour-glass Constriction of Stomach.
Dr. Marten—Hour-glass Constriction of Stomach.
Dr. Giles—Case of Tetanus.
Dr. Borthwick—Vaccination and Legislation.
Dr. Hayward—Note on Intussusception.
Drs. A. A. Hamilton and Cavenagh Mainwaring—Case of Malignant Disease of Pancreas.

Dr. Harrold—Treatment of Gleet.
Dr. Todd—Case of Intestinal Anastomosis.
Dr. Bonnin—Case of Intestinal Anastomosis.
Dr. Brummitt—Remarks on Ipswich Annual Meeting.
Drs. Hayward, Swift and Corbin—Foreign Bodies in Respiratory Tract.
Dr. Swift—Injuries at and near the Elbow-joint.
Dr. Gault—Treatment of Phthisis in the European Sanatoria, &c.

Statement of Receipts and Expenditure for Year ending 30th June, 1901.

DR.	£	s.	d.
To balance in Bank, June 13, 1900 ...	199	15	1
„ Interest	4	13	8
„ Subscriptions	249	7	6
	£453	16	3

CR.	£	s.	d.
By Subscriptions to B.M.A.	120	4	6
„ „ *A.M.G.*	69	1	6
„ Exchange	1	10	2
„ Printing and Stationery	11	11	0
„ Clerical Assistance to Hon Sec. and Postage	9	14	6
„ Christmas Gratuities	1	10	0
„ Sewell & Co. (Funeral Wreath) ...	2	1	0
„ Balance in Bank	238	3	7
	£453	16	3

Liabilities and Assets.

LIABILITIES.	£	s.	d.
Subscriptions to B.M.A.	125	9	6
„ *A.M.G.*	13	0	0
Expenses for ensuing Half-year	15	0	0
	£153	9	6

ASSETS.	£	s.	d.
Balance in Bank	238	3	7
Outstanding Subscriptions	69	16	6
	£308	0	1

Audited and found correct.
A. E. WIGG.
17th June, 1901.

W. T. HAYWARD,
HON. TREASURER.

NEW SOUTH WALES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

◆

THE regular monthly meeting of the Branch was held at the Royal Society's room on Friday, 28th June, 1901, at 8.15 o'clock. Present: Dr. Foreman (President) in the chair, Drs. Carlisle Thomas, Knaggs, Binney, Hinder, Allan, Kater, West, Spencer, Hankins, Rennie, Thring, Carruthers, Morgan Martin, Taylor Young, Savage, Corlette, Litchfield, Jamieson, Crago, Clubbe, Trindall, Cosh, McDonagh, Maitland, Worrall, Gordon Craig, Watson Munro, Tidswell, Palmer, Levy, Mills, Todd, Fiaschi, Gledden, Flynn, Read, Sydney Jones, Blaxland, Harriett Biffin, Bowman, Megginson, J. Morton, Forster, P. S. Jones, junr., Lipscomb, and others. Visitors, Mr. Bingafield, Dr. Ellen Wood.

The minutes of the previous meeting were read and confirmed.

The PRESIDENT announced the election of the following members: Drs. Forster, J. J. Kelly, John Harris, Julia Carlisle Thomas, and H. Throsby, and the nomination of the following: Drs. George McLean, S. Bruce Burge, P. S. Jones.

The PRESIDENT announced the death of the late Dr. Dagnall Clark.

Letter from Dr. W. Spencer was read with reference to the medical officers of the William Gane Lodge, Newtown.

EXHIBIT.

Dr. BINNEY exhibited a case of an old man, 70 years of age, who had a large tumour of the back of 20 years' standing. It appeared to be of the nature of a cavernous angioma, and had caused no inconvenience.

Dr. HINDER read a paper on "Tubercular Disease of the Bladder and Genitals," illustrated. (See p. 279.)

Dr. WORRALL said that Dr. Hinder had as usual given them a paper of interest. He was glad to hear Dr. Hinder say that "after the introduction of an instrument, the whole character of the ulcer changed for the worse," and was surprised when later on Dr. Hinder referred to frequent cystoscopic examinations and energetic local treatment. He (Dr. Worrall) thought that in these cases prior to the development of cystitis, the less local interference the better. In his experience drainage of the bladder by the urethra often led to cystitis in spite of every care. Although he examined by Howard Kelly's method, every case of intractable cystitis he had not discovered tubercular ulceration except in one or two instances. He did not therefore think these lesions were as common as Dr. Hinder was led to believe from his own experience, but he would in future keep a keener look out.

Dr. SYDNEY JONES said, that he rose not to criticise Dr. Hinder's interesting paper on a subject which in this city he had made very much his own, but to ask for an explanation.—Dr. Hinder said that some of his cases were "symptomless." The question he (Dr. Sydney Jones) would ask, was "if symptomless, why was a cystoscopic examination made." He could well understand that if the patient had tubercular disease of the genital organs the bladder would be examined, but in the absence of such a condition and of all bladder symptoms it was not clear why a cystoscopic examination was made.

Dr. **GORDON CRAIG** said he did not wish to criticise Dr. Hinder's paper, which he had listened to with much interest. Dr. Hinder remarked in his paper that in certain cases retention of urine was sometimes a symptom of bladder ulcer. Recently he had had two cases bearing on this question. One, a girl aged nineteen, who for twelve months had been unable to void urine but once in two or three days, and then only when the bowels acted. When he saw her she was in much pain with distended bladder. He drew off sixty ounces of urine and did not empty bladder. She was given a urinary antiseptic and the bladder regularly emptied every eight hours for a week. She did not improve. He saw her then in consultation with Dr. Hinder, and a cystoscopic examination under ether showed a small tubercular ulcer near the orifice of left ureter. A pelvic examination revealed a thickening of left Fallopian tube, probably of tubercular origin. Drainage with glass catheter, absolute rest, and good feeding was carried out for three weeks. From an inch of pus in ordinary specimen-glass at first the deposit gradually lessened until at end of three weeks just a trace of muco-pus was present. She recovered a normal bladder tone, and was well now at end of month. This case had been previously treated by constitutional and climatic measures with no effect. He thought that this bore out the fact that topical treatment was of decided value in tubercular cases. The second case had the same symptom of retention of urine. She was a married woman, twenty-six years of age, and had been ill a month. Twelve months previously she had a similar attack, which lasted a month. She was given a urinary antiseptic and the urine drawn off at regular intervals. She did not improve. A cystoscopic examination was made with negative result with exception of a doubtful patch of hyperæmia near orifice of right ureter. She was sent to hospital and the bladder drained with glass catheter for one week. An accident revealed the true nature of case. The patient in the next bed was under similar treatment and had the misfortune to have the catheter break in her bladder. This necessitated removal of fragment under an anæsthetic. The next morning the patient first mentioned complained of a similar accident and on examination the fragments were found in the bed, not in the bladder. The inside of her thighs showed several scratches. A subsequent cystoscopic examination confirmed the functional character of the case. She was discharged, given a placebo, and has remained well ever since. These two cases demonstrated to him how closely an organic and functional disease of the bladder may resemble each other.

Dr. **TAYLOR YOUNG** said he should like to know how Dr. Hinder had arrived at the diagnosis of tubercular ulcer. He did not think the examination by cystoscope the best method.

Dr. **HINDER**, in reply, said he thanked the members for the very kind and patient hearing they had extended to him, and for the friendly criticisms which had been passed on his paper. Dr. Taylor Young seemed to be anxious to know how he arrived at the diagnosis of tubercular ulcer. He had already stated that in his paper, but perhaps he had better do so more fully. He had used the cystoscope for the past six years. At first he examined normal bladders, then he examined every bladder he came across, whether normal or abnormal. Later still, if by good luck he chanced upon a man with bladder symptoms, and with tubercular prostate and testes, a condition of affairs which all would admit was by no means difficult to diagnose, you would hardly raise any objection to his coming to the conclusion that if a vesical ulcer existed in such a case, it was extremely probable indeed that that ulcer was a tubercular ulcer. If, too, the ureters were seen to emit clear urine, one could be still more certain that the ulcer was tubercular. In this way he learned to recognise the features which were characteristic of the condition, just as any of us on looking at an ulcer on any surface would be prepared, with a fair degree of accuracy, to say that an ulcer was malignant, or tubercular, or syphilitic, so that he maintained that it was possible, in very many though not in all cases, to recognise a tubercular ulcer in the bladder by simple inspection. He did not say he *frequently* passed the cystoscope, two or three examinations in the course of a case, and each examination lasting four or five minutes, are ample to enable one to judge the course of the case. He admitted that he was in error, and should have stated that directly a catheter was *carelessly* introduced, the whole character of the case is altered, for he doubted not but that if Dr. Taylor Young or Dr. Worrall passed a catheter, probably no harm would be done, but this was not the case with some men whose ideas of aseptic and antiseptic surgery are somewhat vague. He admitted that he, as well as Dr. Taylor Young, was taught that meddlesome interference with a tubercular bladder was very wrong, but he would remind him, also, that as a gynæcologist, he must know that it was taught a long time ago that meddlesome interference with ovarian tumours was almost criminal, and that the same might be said of tubercular disease in various parts of the body, and there was good reason for it, but he maintained that meddlesome interference has made surgery what it was, and provided one's reason for meddling was sound, and still more that the result of one's meddling was good, then why complain of it? The cases were there, the treatment and results were there, and not under his own scrutiny only but that of others who could testify to the truth of the results. It would ill become him to say anything against Howard Kelly's method which had its well defined scope and in his well trained hands meets with the greatest amount of success for the purpose for which he mainly uses it. He had used it, and in the presence of others, and though it might be of great service for catheterising the ureters in women, yet, for a thorough examination of the whole bladder wall it falls far short of a cystoscopic examination. He was rather precise in his terminology and should like to explain to Dr. Sydney Jones that he had seen very few cases which were symptomless but signs were present in the way of pus or blood in the urine. By symptomless he intended to say that there were no subjective signs.

Dr. **THRING** read a paper on "Appendicitis from a Surgeon's Point of View." (See page 267.)

Dr. **WORRALL** said, that he had listened to Dr. Thring's paper and read that of Dr. Mills with much pleasure. As he had been absent from the last meeting he might say he was in favour of early operation, except in simple cases; but one point had to be clearly recognised, and that was, that there was scarcely any operation in which skill and knowledge of the subject counted for so much. A slight error made all the difference to the patient between life and death. He would like to call attention to the great importance of the position of the appendix, whether inside, behind or outside the cæcum. A matter in dispute was whether the appendix should be removed in cases of abscess; he believed it should, if this could be done without increasing the risk to life, but otherwise, it was best to wait and remove it later on. In many cases it gave no further trouble, especially if provision were made for ***prolonged*** drainage and irrigation by which it came away in shreds and small sloughs. In his last case the drainage tube was not entirely removed for six weeks. It was wrong to remove the drainage tube at the end of a week in cases in which the appendix had been left, as was usually recommended. A concretion should always be searched for. He showed one which he had discovered a few days before in removing a very densely adherent pyosalpinx. The tube, the appendix, and the rectum were tangled together, and the appendix had evidently ruptured into the rectum, to which it was adherent very firmly by nearly its whole length. Under these circumstances he thought it best to double clip the appendix at its base, divide it, tie both ends, and top sew the peritoneum over each end, not removing the distal portion adherent to the rectum, lest the lumen of the latter should be again opened. The patient made an easy recovery. He strongly recommended that in those cases in which the appendix pointed downwards and the resulting abscess was in the pouch of Douglas, it should be opened through the the vaginal vault and a drainage tube stitched in the opening. He had had some striking successes by this method, one a virgo intacta, he had done two years ago and she had been perfectly well since. If the appendix gave further trouble it could be removed by the usual incision at a later and safer period.

Dr. **Hinder** said he had listened with much pleasure to Dr. Thring's paper, and agreed with him on the main issues introduced, but at the same time he should say that if a first attack was sufficiently severe to need operation during the interval which follows, it was severe enough to need operation at the time, for a septic condition existed in both cases. We would not advise that a septic focus should be left in other parts of the body. Then why should we do it here? The risk was said to be greater, but as a matter of fact it was not. He never had other than good result follow operation in these acute cases, nor did he see why he should. A first attack, too, was not uncommonly the last attack that patient has on earth. He had ascertained that on one or two occasions when a sinus had persisted after drainage of an abscess, a fæcal concretion had been found at the bottom of the sinus. Since then, on opening an appendicular abscess, he had searched, and in the last three cases had found a fæcal concretion loose in a corner of the abscess cavity, and removed it. He was strongly of opinion that this would be found to be a frequent cause of the recurrence of abscess or the persistence of a sinus after drainage, though the recurrence in his own cases he found by no means common, and in the future he imagined it would be still more rare after the adoption of the plan of searching for and removing the loose concretion.

Dr. **Morton** said he would like to raise a question as to the advisability of opening through the rectum an appendicital abscess pointing in that direction. In a case of his, where a large abscess due to appendicitis was found bulging into the rectum, he easily made a puncture in the bowel wall and dilated it well, repeating the dilation daily for a few days. The after results were very satisfactory. The pus drained away readily, and the presence of fæces in the rectum did not appear to have any bad effect on the abscess cavity.

Dr. **Maitland** congratulated Dr. Thring on the paper that he has read this evening, and he was more than pleased to hear that the views Dr. Thring had expressed as to the time of operation agreed with views that he (the speaker) had expressed at the last meeting on the discussion on Dr. Mills' paper. At that meeting Drs. Hankins and Rennie, with others, had advocated operation as soon as the diagnosis of appendicitis was made. This evening a similar view had been expressed. The speaker did not quite agree with Dr. Thring's classification, but proposed to classify appendicitis into (1) catarrhal, (2) appendicitis with local abscess formation, and (3) acute perforating appendicitis. There were many cases of acute appendicitis pathologically as simple as acute tonsillitis, which recover with very little treatment or none at all; surely a surgeon was not justified in subjecting such cases as these to a major surgical operation. Perforative appendicitis was as Dr. Thring had mentioned, a serious complication, but if it occurred in any material proportion of cases it would be an argument in favour of the immediate operation, but it did not, it was rare, occurring, according to Maylard, in about three per cent. of cases, he (the speaker) only remembered seeing it on four occasions during the past nine years, but because cases might be cured by the immediate operation he did not think a surgeon was justified in removing every offending appendix as soon as the diagnosis was made. On the other hand he was well aware of the dangers of delay, and in any particular case of appendicitis which was sufficiently ill to necessitate the advisability of operation being considered, then he would operate, when in doubt operate was a good maxim. There were certain symptoms which pointed to immediate operation; high pulse rate, with a low temperature especially, persistent vomiting, a rise in temperature after an initial fall, especially if the rise took place about the sixth day. He agreed with Dr. Thring in his treatment of the suppurating cases, open the abscess, remove the appendix if possible, if not wait till the abscess cavity (some ten days) was granulating, and then make an attempt to remove the appendix. He understood Dr. Worrall to say in the case he mentioned that the patient passed a stercolith from the appendix by the bowel, he could not quite understand that because a stercolith always formed in a strictured appendix on the distal side of the stricture, that is, away from the bowel, it might have been a gall-stone. He did not agree with Dr. Worrall's treatment of the case he mentioned in which he opened a suppurating appendicitis through the vaginal vault. To sum up his own views with regard to the operative treatment of appendicitis, he thought that every case of appendicitis (except the very mild cases), should be operated upon, but that the operation should not be done during the acute stage without the operation was specially indicated by the patient's condition. The ideal time to operate was in the interval some two or three weeks after the acute attack was over, before the adhesions to surrounding structures became dense, and he was sure that every surgeon would agree that the mortality of the operation done during this stage was less than at any other.

Dr. **Gordon Craig** said: Dr. Thring in his paper stated that he had so far modified his views, that he would operate after the first attack. In the question of operation in appendicitis there were the extremists and the middlemen so to speak; the one who advised operation in every case, the other who never operated and the man who treated each case on its merits. From a purely surgical aspect, and under ideal circumstances, the time for operation should, he thought, be at the onset of the first attack. It was seldom, however, that these conditions were fulfilled. Series of cases had been quoted by eminent surgeons, shewing recoveries in every instance where the operation was undertaken before rupture of the appendix took place that was practically a hundred per cent. recovery rate. Lockwood had demonstrated recently that the peritoneal coat of the appendix, after an attack of inflammation of that organ, contains micro-organisms indistinguishable from those taken from an appendix during the height of an attack. This shows that a patient was under much the same risk in an operation during the so-called interval as at the onset of an attack apart from the consideration that the adhesions were, as a rule, more troublesome in the interval than at the onset. The financial and social position of a patient enters into our consideration in coming to a conclusion as to whether we should recommend operation or not. The poor man we send to hospital, the rich man can be operated on at home or a private hospital, but the multitude between these extremes, who feel keenly the question of payment for an abdominal section, we are often compelled to temporize, as we feel that, so far as the opinion amongst medical men was concerned, we cannot afford to be dogmatic.

Dr. BINNEY would like to ask Dr. Thring how long the patients were ill during a so-called previous attack. He mentioned a time varying from two to ten days. By appendicitis we generally understand a definite illness with definite symptoms and physical signs which indicate certain pathological condition in the appendix and surroundings. An illness of two days with abdominal pains, and some temperature subsiding quickly is not likely to be appendicitis, although such cases have been included in statistics. Dr. Craig argues in favor of operation during an attack, and the results attained by some surgeons seem to justify such a procedure. They argue that by promptly taking in hand by operation all definite appendicitis cases, the general mortality would be less, although the general condition of the patient might not be so good. The removal of the appendix in quiet intervals was often difficult and lengthy owing to adhesions, whereas, during the attack the operation is often more easily and quickly performed, and the risk to the patient thereby lessened. he would like to ask Dr. Thring, if in perforating cases he had employed multiple incisions, and with thorough flushing, and if necessary, eviscerations of intestines. Such treatment has been successful in apparently hopeless cases after perforation.

Mr. THRING, in reply, could not agree with Dr. Worrall that portal infection was a common sequel to acute appendicitis. Dr. Worrall questioned the advisability of operating after *slight* attacks of appendicitis. On the other hand, how can we tell whether the next attack, if such happens, may not be a perforating one? It was just this uncertainty which made one feel that a comparatively safe operation, done in the "quiet interval," was preferable to taking the risk of a possible acute perforation. Instances of such cases had been referred to in the paper just read. The opening of an appendiceal abscess through the vault of the vagina should be avoided, except in some instances as a secondary drainage track. The usual iliac incision should be made in all cases, and the appendix removed, either at the first (and only) operation, or, as in the case quoted, after a short interval at a second operation. Any operative procedure which left the appendix behind, was incomplete and unscientific. Mr. Thring could not entirely agree with Dr. Hinder. He would certainly *not* choose to operate *during* a *first* attack, unless obliged to do so by the urgency of the symptoms. In fact, he would never elect to operate *during* an attack, but whenever possible during a "quiet interval." In the "quiet interval" the resisting power of the tissues involved was greater than when inflamed and œdematous during an acute attack. The results, therefore, might reasonably be expected to be better. Dr. Morton had raised the question of opening an appendiceal abscess through the rectum. Certainly in some instances this appeared to be Nature's way of effecting a cure. As a method of election he (Mr. Thring) would not resort to it, and in any case only as an accessory to the radical operation for *removal* of the damaged appendix through the iliac incision. In cases of secondary general peritonitis, multiple incisions to drain both loin pouches, and the recto-vesical pouch, or Douglas' pouch in women, appeared to give the patient the best chance of recovery.

A MEETING OF THE MEDICAL PROFESSION OF SYDNEY AND SUBURBS was held at the Rooms of the Royal Society, Elizabeth Street, on Friday, 12th July, to consider whether it is expedient that members of the Honorary Staff of Public Hospitals should receive fees from any patients treated in those hospitals, a report of which meeting will appear in the August issue.

THE WESTERN AUSTRALIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

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THE ordinary general meeting for June was held on the 1st inst., at Fremantle Public Hospital.

Present: Drs. Davy (Vice-President, in the chair), Paget, Badock, Lotz, Thompson, Deravin, and Anderson (Hon. Sec.).

Drs. Rockett and Harper were elected members.

Dr. Leonard S. O'Flaherty was proposed for membership.

The proposed address to the Duke of York was then read, and its final consideration deferred until next meeting.

The consideration of the Constitution Committee's report was then entered upon.

Letters were read from Edmund Owen, chairman of the Constitution Committee, and from the Secretary of the New South Wales Branch, in reference to this matter.

The CHAIRMAN then suggested that he should read through the draft report of the Committee. This was agreed to, and Dr. DAVY then very ably and lucidly went through the report, emphasising the leading recommendations.

The proposed resolutions of the New South Wales Branch on the report were then carefully considered seriatim. Finally, the following resolutions were proposed and seconded, and carried unanimously:—

"1. That the West Australian Branch, while approving generally of the Constitution Committee's report and scheme for the re-organisation of the Association, does not feel justified in taking an active part in the discussion of its details, except in so far as they affect the members in the Australian States."

"2. That the West Australian Branch holds that the new constitution should specifically provide that the Australian Branches shall have complete autonomy, subject to the fundamental laws of the Association, as declared in the Memorandum and Articles of Association of the Company."

"3. That the West Australian Branch holds that the fundamental laws of the Association ought, under no circumstances, to be declared in By-laws or otherwise, than in the Memorandum and Articles of Association."

"4. That the West Australia Branch holds that there is grave risk to the future usefulness of the British Medical Association as a factor in advancing and maintaining the interests of the medical profession in

Australia, unless the Australian Branches are free to make and give effect to their own rules for the admission and expulsion of members."

"5. That the West Australian Branch holds that the annual subscription of the members of the Association in the Australian Branches should not be made to include any sum contemplated to be made a refund in the form of a 'Capitation Grant,' as proposed in the first, third, and fourth paragraphs of the Constitution Committee's recommendation, and that the Australian Branches and Divisions be empowered to make rules regulating the subscriptions of their members, which shall include the annual subscriptions of their members to the Association."

"6. That the Associations, in the event of the Recommendations for Local Organisation by means of Divisions and the agglomeration of such Divisions into Branches being adopted be asked to approve of the West Australian Branch remaining undivided, and so of being regarded as a Division for the purposes defined in the Recommendations."

"7. That a copy of these resolutions, 1 to 6, be forwarded to the General Secretary, London, and also to the Secretary of the New South Wales Branch, the latter also being informed that this Branch is much indebted to them for their memorandum on the Report and desires to affirm them."

"8. That a letter be sent from the West Australian Branch to the Association, asking that, in the event of the Association adopting a new constitution or any modification of that now in existence, special provision be made therein to the effect that the Australian Branches of the Association shall be autonomous, that is to say, shall have power to make their own rules and regulations, subject only to the fundamental laws of the Association as declared in the Memorandum and Articles of Association of the British Medical Association, or in the charter thereof, as the case may be, and that such fundamental laws shall not prohibit the Australian Branches from making rules and regulations for the admission and expulsion of members, and asking further, that the annual subscription to the Association of the members of such Branches be not made to include any 'Capitation Grant' as that proposed in recommendation 20 of the Constitution Committee's Provisional Report to the Branches."

"9. That the West Australian Branch holds that the Association should use every effort to assist in the federation of the Australian organisations with a view of exercising their autonomy according to the provisions of resolution 8."

"10. That from the profit arising from the *British Medical Journal*, a due proportion be remitted to the Australian Federated Organisation for scientific, literary and other purposes."

Dr. **PAGET** then proposed and Dr. **LOTZ** seconded the following resolution:—"That the Secretary write to the Secretary of the Intercolonial Medical Congress for 1902, to the effect that it is the earnest wish of this Branch that a section devoted to Medical politics and ethics should be organised for the coming congress." Carried unanimously.

A communication was then read from the General Secretary, London, *re* the nomination of a representative from the Branch for the Council.

Dr. **PAGET** proposed and Dr. **BADOCK** seconded the following resolution:—"That by present by-laws, and owing to recent formation of the Branch, there is no member available for nomination, but that this Branch desires that, if possible, special provision be made to have a representative at home, and preferably that Mr. Victor Horsley should be asked to act." Carried unanimously. Some pathological specimens were then shown, including a heart with patent *foramen ovule* from a man aged 33 years. The meeting then terminated.

PROCEEDINGS OF OTHER SOCIETIES.

MEDICAL BENEVOLENT FUND OF N.S.W.

Dr. **MAITLAND**, Hon. Secretary, begs to acknowledge the receipt of Subscriptions to the Benevolent Fund from the following:—(2 years) Dr. Foreman, Dr. Blackburn, Dr. Gillies, Dr. Sigismund Brown, Dr. MacCulloch, Dr. J. Marshall (Bega), Dr. F. G. Connor (Lismore), Dr. Poggioli (Barraba), Dr. Lewis Hickey (Nyngan), Dr. Charles Clubbe, Dr. N. V Kater, Dr. Murray Oram, Dr. John McDonagh, Dr. Watson Munro, Dr. Wally (Tamworth), Dr. Scot Skirving, Dr. Lane (Inverell), Dr. Hurst (Bathurst), Dr. Worrall, Dr. Richard Read, Dr. W. J. Tilley, Dr. Kirkland, Dr. Charles Mackellar, M.L.C., Dr. Pickburn, Dr. T. Green; (1 year) Dr. Herbert Throsby (Maclean), Dr. Stephens (Walcha), Dr Littlejohn, Dr. Crago, Dr. W. Chisholm, Dr. Fiaschi. Dr. Frank Liddell, Dr. Gledden, Dr. O'Hara, Dr. McClelland, Dr. F. W. Hall, Dr. Faithfull, Dr. Doak, Dr. Kiernander, Dr. Arthur Andrews (Albury), Dr. Meeke (Cobargo).

Subscriptions to be sent to Dr. H. L. Maitland, Hon. Secretary, 6 Lyons' Terrace, Hyde Park, Sydney.

ROYAL SOCIETY OF TASMANIA.

THE ordinary monthly meeting of the Medical Section was held on 5th June, 1901. Present: Dr. Butler, President (in the chair), Drs. Bright, Wolfhagen, Anderson, Clark, Sprott, Ireland, Crowther, and E. T. Macgowan (Hon. Sec.).

Dr. G. M. **ANDERSON** read a paper on "Puerperal Eclampsia" (p. 286).

Dr. **WOLFHAGEN** would have expected greater pathological changes in the brain than Dr. Anderson described.

Dr. **IRELAND** said, with regard to heredity, he had attended two women whose mother died during eclampsia. Both these women had suffered from eclampsia, one being a fatal case.

Dr. **BRIGHT** thought, with regard to the ætiology, that any cause tending to depress the nervous system predisposed to an attack of eclampsia. He knew a case in which a woman had always had natural labour until she was confined away from home and friends, when she was very depressed about her condition, developed eclampsia, which ended fatally.

Dr. **BUTLER** considered the cause of eclampsia must be analogous to that of acute Bright's disease. He knew a case of a woman with chronic albuminuria, who always had natural labours; and had also a case of eclampsia, in which he could find no albumin in the urine.

Dr. **CLARK** and Dr. **SPROTT** advocated rapid delivery of the patient.

Dr. **MACGOWAN** said that whatever the toxin was, causing the disease, the desire was to eliminate it. He would use saline solution in intravenous injections, and endeavour to get the skin to act, thus diluting the toxin and causing its excretion.

ABSTRACTS.

SHORT EXTRACTS FROM FOREIGN MEDICAL LITERATURE.

BY WALTER SPENCER, M.D., ENMORE, N.S.W.

◆

A MANUAL OF GYNÆCOLOGICAL PRACTICE. By A. Dührssen, Berlin; Lewis, Publishers, London.

We have little hesitation in stating our opinon, that this is, without exception, the ablest small work on gynæcology in any language. There is, perhaps, no other work which so fulfils the requirements of terse, exact, and clear statement; not a word can be omitted; little can be added. As is to be expected, the vaginal route bulks largely in Dührsson's scheme of the Cosmos; but leaving this aside, the student will find gynæcology treated by him in a most masterly fashion.

ANÆSTHETICS. By Dudley W. Buxton; Lewis, Publishers, London.

This work, though not entirely satisfactory, must yet be allotted a prominent place. Some of the writing is decidedly "woolly," the author losing his grip on the subject; some of the statements are entirely opposed to our own experience and practice; but with allowance made for the point of view this is probably the best English book on anæsthetics.

ANNALES DE LA SOCIÉTÉ BELZE DE CHIRURGIE, July, 1900. to June, 1901.

Dr. Goris relates two cases of spontaneous *fracture of the styloid process*, characterised by sudden sharp pain in front of and rather above the tonsil, and by the presence of a submucous hard point directed inwards and upwards. The first case occurred during a paroxysm of coughing; the tumour was believed to be a piece of rabbit's rib which had been partially swallowed. Its extraction was difficult, inasmuch as the muscular attachments were unsuspected. The second case was diagnosed at once. An incision over the tumour was made through the pharyngeal mucosa, the bone seized, and its attachments separated with scissors.

He also describes a case of *Basedow's disease*, which, although there was a history of tracheal oppression and digital tremors, presented no apparent goitre until it was diagnosed by laryngoscope, upon which it was cured by thyrodectomy; also one of *œsophageal diverticulum* arising at a right angle from the œsophagus opposite the upper tracheal rings. After removal of the pocket, the narrowness and depth of the incision rendered suturing a task of difficulty. A smooth tube was inserted through the nares into the stomach, and maintained immovable for four days to transmit nourishment. On the 5th day it was removed and the thyroid body raised while the patient swallowed some water, none of which exuded. On the sixth day 5 per cent. of the milk swallowed oozed out; from the seventh to the tenth 10 per cent., after which the loss diminished daily. On the tenth day some sop was allowed, and on the eleventh a hash. Exudation ceased on the fourteenth, and the patient dined at a restaurant on the fifteenth day. He maintains, therefore, that the five days' fast prescribed by Kocher, or the preliminary gastrotomy of Wetzel, is not always necessary.

In operating for *prostatic hypertrophy*, Dr. Verhoogen extols the superiority of Bottini's method by galvano-cautery, which is described in the treatises of Bottini, Trendenberg, Frish and Crick.

DEUTSCHE MEDICINISCHE WOCHENSCHRIFT, No. 11.

Dr. Albu remarks that the treatment recommended of late for *gastric dilatation* has been based on the notion that absorption by the gastric mucosa is reduced and that liquids are therefore an encumbrance. But since Von Mering has shown that hardly any power of absorption exists in the normal stomach, which jerks liquids into the intestine as fast as possible, it is evident that a dry diet is a mistake, that liquids possessing nutritive value should be ordered, water and innutritious fluids only being avoided. In the usual secondary variety of dilatation solids would either be rejected or remain in the stomach fermenting for many hours. He recommends, therefore, the injestion of light fluid food every hour during the day.

REVISTA DE MEDICINA Y CIRUGIA DE LA HABAÑA, October, 1900.

In dystocia due to accidental shortening of the umbilical cord (coiling), Dr. Fortun lays stress on the symptom of pain in the uterus at the placental site, and hæmorrhage during contractions. Other signs are not constant. He finds that in a majority of such cases the presentation is occipito-posterior.

EQUISETUM HYEMALE.—In answer to an Australian correspondent as to the meaning of the word "equisetum," which occurred in an article on "Eucalyptus Globulus," by Dr. A. B. Woodward, reprinted from the *Eclectic Medical Journal* in our issue of March last, page 118. The author of the article in question has sent the following explanation:—

Equisetum Hyemale: Synonym—scouring rush. Part used—the whole plant. Scouring rush is a perennial flowerless plant, propagating by spores instead of seeds, growing in damp soil, attaining a height of from two to four feet. Stem simply erect, jointed, hollow, terminal spikes, cuticle containing silex. Solvents—alcohol, water. Constituents—silex, resin, wax, sugar, starch, salts, fixed oil. Preparation—Tincture with dilute alcohol; cut in short pieces, fill a jar, and apply sufficient weight; cover with dilute alcohol, let stand fourteen days, and filter. A specific tincture. dose 5 to 30 drops in water. Therapy—A diuretic useful in suppression of urine from any cause; useful in dropsy and in lithæmic conditions when the urine is scanty, of high specific gravity, and dark coloured. In hæmaturia, of much service in gonorrhœa and gleet, irritable bladder, incontinence of urine in children. An infusion made from the green stalks is sometimes of more service than tincture. Its use is decidedly favourable in all trouble of kidney, or mucous membrane of stomach, bowels, and the urinary tract. There is no disease in which it is *not* useful, especially *fevers* affecting the bowels and kidneys is its usefulness shown, as well as inflammation of kidneys and bladder. One of its useful properties is a peculiar *astringent* that prevents hæmorrhage from bowels in typhoid fever, and, at the same time, keeps the kidneys in healthy condition to tide over the danger of trouble with kidneys in such fevers.

KOOKYNIE DISTRICT HOSPITAL, WESTERN AUSTRALIA.—Applications are invited for the position of Medical Officer to the above Institution, at a salary of £300 per annum, with right of private practice. Applications to be in the hands of the Secretary not later than the 31st day of July, 1901.—C. S. YEO, Secretary *pro tem.*

NOTICES.

ORIGINAL ARTICLES WILL BE INSERTED SOLELY ON CONDITION THAT THEY ARE NOT CONTRIBUTED TO ANY OTHER PERIODICAL.

All communications intended for publication may be addressed "The Editor, Australasian Medical Gazette, 121 Bathurst Street, Sydney," or to the Branch Editors for the other colonies.

Contributors will have to pay the cost of illustrations accompanying their articles.

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SPECIAL NOTICE.—ORIGINAL ARTICLES FOR INSERTION IN THIS "GAZETTE" SHOULD REACH THE EDITOR ON THE 3RD, OTHER COMMUNICATIONS NOT LATER THAN THE 7TH, AND CORRECTED PROOFS ON THE 12TH OF EACH MONTH. FAILING THIS, THE EDITOR WILL NOT BE RESPONSIBLE FOR NON-INSERTION OR PRINTERS' ERRORS. VERY LENGTHY COMMUNICATIONS WILL ONLY BE INSERTED WHEN SPACE PERMITS.

THE AUSTRALASIAN
MEDICAL GAZETTE.

EDITED FOR THE PROPRIETORS BY
SAMUEL T. KNAGGS, SYDNEY, N.S.W.;
AND FOR THE OTHER BRANCHES OF THE
BRITISH MEDICAL ASSOCIATION BY
A. B. BROCKWAY, BRISBANE, Q.; H. W. BRYANT,
WILLIAMSTOWN, VIC.; J. B. GUNSON,
ADELAIDE, S.A.; AND J. MASON, OTAKI, N.Z.

SYDNEY, 20TH JULY, 1901.

EDITORIAL.

CELEBRATION OF RUDOLF VIRCHOW'S EIGHTIETH BIRTHDAY.

On 13th October next the world-renowned pathologist and anatomist, Rudolf Virchow. will attain his 80th year. An influential committee has been formed in Germany to arrange for an appropriate recognition of the event. The efforts of this committee are directed toward providing a substantial increment to the already existing "Rudolf Virchow Foundation," which is devoted to the support and furtherance of research in those branches of scientific work to which Virchow's long and strenuous life has been dedicated.

It is. probably, not too much to say that the period of Virchow's active scientific career has been the most fruitful epoch in the history of the medical sciences. Of the illustrious band of European observers and investigators who made the middle period of the nineteenth century what it was, Rudolf Virchow is now one of the very few, and also one of the most distinguished surviving representatives. In a very real sense every one who follows up the science and practice of rational medicine may be said to be the pupil of one who, if not the sole founder, was the most celebrated exponent of that "cellular pathology" upon which is based practically all our interpretation of morbid structure and process.

In recognition of Virchow's great scientific achievements, and of his now unique position as representing the birth-period of modern medicine, an Australasian committee has been formed, at the suggestion of Professor Waldeyer of the University of Berlin, to co-operate with the European committee. A circular containing the names of this Australasian committee, and of the precise objects to be attained, has already been issued. It is, therefore, only necessary to call attention to the fact that it is not the primary or chief aim of the committee to collect a large sum of money, but rather to obtain a general response to the invitation to unite with the rest of the medical and biological confraternity throughout Europe and America in a common congratulation to the old pioneer and veteran on the occasion of his eightieth birthday.

In case any should fail to be reached by the circular issued it may here be stated that autograph signatures on a separate slip of paper (name, designation, and name of town or country district) and accompanied by subscriptions, however small, will be thankfully received on or before August 1st, 1901, by any of the following:—

Professor J. T. Wilson, General Hon. Sec. and Treas., University of Sydney.
Professor C. J. Martin, Hon Sec. and Treas. for Victoria, University of Melbourne.
Professor Arch. Watson, Hon. Sec. and Treas. for South Australia, University of Adelaide.
Dr. J. Lockhart Gibson, Hon. Sec. and Treas. for Queensland, Brisbane.
Dr. Athelstan J. H. Saw, Hon. Sec. and Treas. for West Australia, Perth.
Dr. Gregory Sprott, Hon. Sec. and Treas. for Tasmania, Hobart.
Professor J. Halliday Scott, Hon. Sec. and Treas. for New Zealand, University, Dunedin, Otago.

LETTERS TO THE EDITOR.

FOUNDLING HOSPITALS.

(To the Editor of the Australasian Medical Gazette.)

Dear Sir,—In your last issue, Dr. Nield, of Melbourne, is reported to have advocated the establishment of foundling hospitals for the derelict infants of society. As the question of foundling hospitals *versus* the boarding-out system is continually cropping up, I trust a few remarks thereon may not be out of place.

In an article in the *Australasian Medical Gazette*, January 20th, 1899, I brought forward evidence that seemed to me conclusive against foundling hospitals. I might, with advantage, restate briefly some of the facts, referring readers to the article for authorities.

Infants' Asylum, Randal's Island, New York: Mortality, 90 per cent. Naples Foundling Hospital: Out of 856 infants admitted during 1895, 853 died within the year. Hospitals for Infants in Paris: Designated a veritable death-trap. Charity Hospital, Berlin: Mortality before 1896, 80-90 per cent.; after 1896, when the hospital was re-modelled, Professor Heubner in constant attendance, and two nurses provided for every four children, mortality, 65 per cent. In Sydney there have been similar experiences (see article). In London the same has obtained (see appendix to article). In the New York Foundling Hospital, managed by sisters of mercy, the mortality was very high, until universal wet nursing was adopted. I may add that a short experience that I had with an infant's asylum in Sydney pointed in the same direction. On the other hand, institutions where breast feeding is insisted on are a complete success.

With regard to the boarding-out system, my statistics show for the infants under six months boarded out in accordance with the New South Wales Protection Act, from March, 1896, to March, 1898, a mortality of 52 per cent. This result is not good, but it is better than anything obtained under the foundling hospital system. Moreover, there is room for great improvement in the boarding-out system, namely, providing medical supervision, and by procuring a better class of foster-mother by increasing her pay.

If these infants have to be hand fed, I am convinced that the boarding-out system is the best one that can be adopted. I remain, yours, etc.,

W. F. LITCHFIELD,
Hon. Medical Officer, H. S. C., Sydney.

MEDICAL FEES AT CORONER'S INQUESTS.

(To the Editor of the Australasian Medical Gazette.)

Sir, My object in writing is to try and bring about some better rate of payment to medical men attending inquests. At present we have to travel 10 miles without payment, and then only one shilling per mile after. It is true that, as a rule, the Chief Medical Officer does grant something more than this when the case is put before him by the Coroner, but it does not seem to me a right and proper thing that a medical man should be at the mercy of a medical brother to get, or not, his undoubted right. There are two ways that occur to me that would fairly meet the difficulty. First, to fix the charge per mile at five shillings one way. Fees for evidence and *post-mortem* to remain as at present, or, secondly, to alter the law so that when a medical man is summoned to attend an inquest it should be optional for him to go or not, as he may feel inclined. At present we are *obliged* to go when ordered, and, as a rule, are paid *less* per mile than is charged by any livery stable keeper.

I am, Sir, yours faithfully,
M.D.

THE RESIGNATION AS MEDICAL OFFICERS TO THE MANCHESTER UNITY LODGES.

(To the Editor of the Australasian Medical Gazette.)

Dear Sir,—A few weeks ago, as is well known by the majority of members of the British Medical Association, three gentlemen, in the interests of the medical profession resigned lucrative posts as Medical Officers to the Manchester Unity Lodges. At great cost to themselves they sacrificed their pockets to the extent of some £400 per annum, to enable the profession to try and present a united front against the encroachments and sweating of these lodges.

At the same time, it was understood by all those gentlemen who had any sense of chivalry and fair dealing, or sense of appreciation of the sacrifices made by these gentlemen, that as far as possible they would, in the interim, refrain from applying for lodges (not proscribed), for which the three gentlemen mentioned should apply.

One gentleman has sacrificed the good will of his medical brethren by his action towards three of his fellow-practitioners, who have made a sacrifice which will, it is to be hoped, be for the ultimate benefit of us all—the deserving and undeserving.

Trusting you will find space for this letter in your valuable columns.

I am,
Yours truly
"DISGUSTED."

IODINE

Its *mild* form—for *internal* administration. Iodide of Hydrogen (*Syrupus Hydriodici Acidi*), strength, 1·28 per cent. absolute gaseous HI. This is the difference between HI. and KI. Substituting HI. for KI.—there is no irritation, indigestion, depression, nor idiosyncrasy to Iodine experienced. This Preparation is *not* a patent medicine, neither is it protected, but is a genuine element in medicine effectively presented in a syrup, and stands alone on its own merits. Assuming the physician's diagnosis to be correct, and the patient strictly conforms to the directions, the Syrup will do all that is claimed for it. Made from pure, Resublimed Iodine, and supersedes Iodide of Potassium in all its indications. The "Original" and only accredited stable SYRUP OF HYDRIODIC ACID (formula presented to the Profession in 1878). Prepared by R. W. Gardner, Pharmacologist, New York. Obtainable in 8-oz. and 16-oz. bottles at all wholesale houses, or from the Australasian Branch, 164 Vickery's Chambers, 82 Pitt Street, Sydney. Sample and descriptive literature on application from physicians.

Speech Defects Corrected, Lip Reading for the Deaf, German (Oral) System for Deaf Mutes, Children and Adults. Appointments by letter. For terms, &c., Miss Adderley, Room 50, Vickery's Chambers, 76 Pitt Street, Sydney.

For Sale.—Unopposed practice, suburb of Brisbane, established 14 years, no clubs, reasonable introduction. Premium, £200. This practice can be confidently recommended to a capable man. Apply to F. McDonnell, Bookseller, Queen-st., Brisbane.

NAVAL AND MILITARY INTELLIGENCE.

New South Wales.

Appointments and Promotions.—*New South Wales Army Medical Corps* (Partially-paid Establishment). Appointments: Norman John Dunlop, B.A., B.Sc., M.B., Ch.M. Univ. Syd., to be Lieutenant, to date from 1st March, 1901. Promotions: Major and Brevet Lieutenant-Colonel Robert Vandeleur Kelly, to be Lieutenant-Colonel, to date from 1st March, 1901; Captain William L'Estrange Eames, to be Major, to date from 1st March, 1901; Captain Reuter Emmerich Roth, D.S.O., to be Major, to date from 1st March, 1901; Captain Alfred Edward Perkins, D.S.O., to be Major, to date from 1st March, 1901. *Volunteer Establishment.*—Appointment: William Arthur Handcock Burkitt, B.A., M.B., B.Ch., B.A.O. Univ. Dub., to be Lieutenant, to date from 1st July, 1901. Promotions: Captain and Hon Major Thomas Henry Fiaschi, D.S.O., to be Lieutenant-Colonel, to date from 1st March, 1901; Lieutenant Charles Frank Warren, to be Captain, to date from March 1st, 1901. Resignation: Lieutenant Marsham A'Beckett McCarthy, resigns his Commission, to date from March 1st, 1901.

New Zealand.

Volunteer Decoration.—His Excellency the Governor has been pleased to approve, under the Royal Warrant dated July 25th, 1892, of the award of the Imperial Volunteer Officers' Decoration to the undermentioned officers:—Brigade-Surgeon Lieutenant-Colonel Robert Stuart Reid, New Zealand Volunteer Medical Staff, he having a total continuous effective service counting towards the decoration to January 8th, 1900, of 20 years.

Appointments.—*New Zealand Volunteer Medical Staff*:—Alexander Lang Murray to be Surgeon-Captain, commission to date from January 14th, 1901; Henry John McLean to be Surgeon-Captain, commission to date from January 24th, 1901; Geoffrey Bruton Sweet to be Surgeon-Captain, commission to date from February 7th, 1901; Marsham A'Beckett McCarthy to be Surgeon-Captain, commission to date from March 28th, 1901; Herbert McClelland Inglis to be Surgeon-Captain, commission to date from January 26th, 1901. *The New Zealand Sixth Contingent*: O'Neil, Eugene J. (late House Surgeon Dunedin Hospital) to be Surgeon-Captain.

South Australia.

Appointments.—*Medical Staff Corps*:—Gilbert Gocher, M.B., Ch.B., M.D. Adel., to be Lieutenant, to date from May 31st, 1901.

Victoria.

Naval Forces.—His Excellency the Governor-General in and over the Commonwealth of Australia, by and with the advice of the Executive Council thereof, has been pleased to approve of the following changes in the Victorian Naval Forces:—Transfer: *Naval Brigade*: Surgeon Harry Paynter Sloggett, M.R.C.S. from unattached list, to active list, to date from May 6th, 1901.

Military Forces.—His Excellency the Governor-General in and over the Commonwealth of Australia, by and with the advice of the Executive Council thereof, has been pleased to approve of the following transfers:—*Medical Staff—Victorian Rangers*: James Alexander Reid, M.D., from the Reserve of Officers, Medical Staff, Victorian Rangers, to be Captain. (Captain Reid will rank regimentally next after Captain R. Lee Brown). *Reserve of Officers, Medical Staff, Military*: Major Robert Denham Pinnock, M.D., from the Fixed Establishment, Medical Staff, Militia, to be Major. Transfer to date from April 1st, 1901.

OBITUARY.

The deaths of the following medical practitioners are announced:—

John Finlay Malcolmson, L.F.P.S. Glasg. 1885; L.A.H. Dub. 1882, late of Port Melbourne. Dr. Malcolmson died on June 14th.

Edward Albert Koch, M.D., Ch.D. Kiel., Government Medical Officer at Cairns, Q., on June 28th, aged 57 years.

Thomas Henry O'Reilly, L.R.C.P. & S. Edin.; L.F.P.S. Glasg., formerly of Auckland, N.Z., committed suicide in a police cell in Sydney, on June 23rd, by pricking his femoral artery with a pin.

Herbert Appleton Palmer, M.B., Ch.B. Melb. 1899, who practised for a short time in Charters Towers, Q., was killed in an engagement at Wilmansrust, in the Middleburg district, in the Transvaal, South Africa, in June.

Archibald Stephen Tunstall Johnstone, L.R.C.P. Ed., L.F.P.S. Glasg. 1883, who practised at Tumberumbah, N.S.W., for the past ten years, died on July 8th.

Frederick Waltham Dickins, M.B. Melb. 1893, died at North Melbourne on July 6th.

CHANGE OF ADDRESS, Etc.

Deans, Dr. J., of San Remo, has succeeded to Dr. Minchin's practice at Portarlington, Vic.

Ekin, Dr. W., late of Picton, has commenced practice at Mosman, near Sydney.

Finlay, Dr. N., late of Kingsborough, Q., has settled at Angledool, N.S.W.

Gibbes, Dr. A. E., has removed from Merewether to Greta, N.S.W.

Gocher, Dr. G., late of Adelaide Hospital, has succeeded to Dr. Leger Erson's practice at Border Town, S.A.

Mackenzie, Dr. J. H., late of Strahan, Tas., has settled at Bethanga, Vic.

Manly, Dr. R. A. A., late of Werribee, has commenced practice at Mansfield, Vic.

Mathews, Dr. J. F., late of Tallangatta, has removed to Branxholme, Vic.

Naylor, Dr. H. G. H., late of Ballarat, Vic., has commenced practice at Rockdale, near Sydney.

Scott, Dr. A. E., late of Wee Waa, has succeeded to Dr. Johnstone's practice at Brownsville, N.S.W.

MEDICAL APPOINTMENTS.

The following Medical Appointments are announced:

Auricht, J. F. T., M.B., to be a Public Vaccinator for South Australia.

Belgrave, T. B., M.D., to be Acting District Medical Officer, Quarantine Officer, and Public Vaccinator at Wyndham, W.A.

Bickle, L. W., M.R.C.S., to be Honorary Surgeon, Adelaide Hospital.

Davies, W. E., M B., to be Public Vaccinator for Ballarat, Vic.

Gibbes, A. E., M.B., to be Government Medical Officer and Vaccinator at Greta, N.S.W.

Gocher, G., M.D., to be Public Vaccinator for South Australia.

Godfrey, Dr. P. J., to be Vaccinator for Strahan and Macquarie Heads, Tas

Greenham, Miss E. C., M.B., to be Resident Surgeon, Lady Bowen Hospital, Brisbane.

Hill, A. W., M.D., to be Honorary Ophthalmic Surgeon, Adelaide Hospital.

Hoystead, L.N., L.R.C.P., to be Officer of Health for Hampden, Vic.

Humphrey, Dr. E. S. to be District Medical Officer at Southern Cross, W.A.

Jackson, J. W., M.B., to be temporary Health Officer at Wallangarra, Q.

Jameson, Dr. A., M.L.C., to be a member of the Executive Council of Western Australia.
Mackenzie, A. C., L.R.C.P., to be Licensing Justice for Mount Morgan, Q.
Mackenzie, J. H., L.R.C.S., to be Public Vaccinator for Bethanga, Vic.
Manning. J. M. A., L.R.C.S., to be Public Vaccinator for the Districts of Mahurangi, Mangawai, Albertland, Matakana, and Waiwera, N.Z.
Marr, G.W.S., M.B., to be Assistant Medical Superintendent of the Hospital for the Insane at Toowoomba, in the room of Herbert Che son, M.R.C.S. Eng., &c., transferred.
Marr, Dr. G. W. S., M.B. Sydney, has been appointed Assistant Medical Officer at the Hospital for the Insane, Toowoomba, Q.
Matthews, J. F., M.R.C.S., to be Officer of Health for Portland, E., Vic.
Plummer, Violet M., M.B., to be Public Vaccinator for South Australia.
Read, Geo., L.R.C.S.I., to be Government Medical Officer and Vaccinator at Picton, N.S.W.
Rogers, R. S., M.A., M.D., to be Honorary Physician, Adelaide Hospital.
Ryan, M. J., M.B., to be Public Vaccinator for Kyneton, Vic.
Shepherd, A. E., L.R.C.S., to be Honorary Surgeon, Adelaide Hospital.
Shields, O., M.B , to be Public Vaccinator for Yea, Vic.
Shields, O. C. G., M.B., to be Officer of Health for Yea, Vic.
Sleeman, J. H., M.B., to be Officer of Health for Ballan, E., Vic.
Smith, Dr. A., to be Officer of Health for Lawlers, W.A.
Stokes, Dr. E. S., to be Assistant Medical Officer of Health for Metropolitan (Sydney) Combined District.
Thomas, J.C., M.D., to be Public Vaccinator for Port Melbourne, Vic.
Turner, A. J., M.D., to be Honorary Representative of Queensland at the British Congress on Tuberculosis for the Prevention of Consumption, to be held in London. July, 1901.
White, D. O., M.B., to be Public Vaccinator for Berrigurra, Vic.
Wynne, Dr. E. T., to be Surgeon to the Hospital at St. George, Q.
Young, D. H., M.B., to be Officer of Health for Shire of Towong, Vic.
Zichy-Woinarsky, G. H. S., M.B., to be Government Medical Officer and Vaccinator at Trangie, N.S.W.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

THE following persons have been duly registered as legally qualified medical practitioners in their respective states :—

NEW SOUTH WALES.

Finlay, Hunter, M.D. Univ. Glasg. 1860; Lic. Fac. Phys. *et* Surg. Glasg. 1860.
MacGillivary, William David Kerr, M.B. Univ. Melb. 1891; Ch.B. Univ. Melb. 1892.
Marsden, Ernest Ambrose, M.B. *et* Ch.M. Univ. Syd. 1901.
Marr, Algernon Smith, Lic. R. Coll. Phys. Edin. 1896; Lic. R. Coll. Surg Edin. 1896; Lic. Fac. Phys. *et* Surg. Glasg. 1896.
Teague, Harold Oscar, M.B. Univ. Melb. 1901.
Verco, Clement Armour, M.B. *et* Ch.M. Univ. Syd. 1901.

For Additional Registration:

Greenham, Eleanor Constance, M.Ch. Univ. Syd. 1901.
Gullett, Lucy Edith, M.Ch. Univ. Syd. 1901.
Davies, Reginald Laidlaw, M.Ch. Univ. Syd. 1901.
Deck, George Henry Baring, M.Ch., Univ. Syd. 1901.

NEW ZEALAND.

Grinling, John Campion, M.B., M.D. Univ. Durham.

QUEENSLAND.

Kane, Francis William, L.R.C.P. & S. Edin. 1889; L.F.P.S. Glasg. 1889.
Marr, Gordon William Singer, M.B. Univ. Syd. 1901.
Thomas, George Bowen, M.B., M.Ch., 1901, Univ. Syd.
Willis, Charles Savill, M.B., M.Ch. Univ. Syd. 1899.
Yule, John Sandison, M.B. Melb. 1899.

Additional Qualifications :

Garde, Henry Lee, M.Ch. Univ. Syd. 1901.
Greenham, Eleanor Constance, M.Ch. 1901, Univ. Syd.
Taylor, Charles James, M.Ch. Univ. Syd. 1900.

Re-gazetted :

Cumming, William, M.B. *et* Ch.M. 1883, M.D. 1885, Univ. Edin. (Originally registered in Queensland, 4th April, 1889.)
MacDonnell, Lucius Gerald Armstrong, B.A., M.B., B.Ch., B.A.O. 1890. (Originally registered in Queensland December 3rd, 1891.)

VICTORIA.

Oronhyatekha, William Acland Heywood, M.D. *et* C.M. Trin. Coll. Toronto, 1892.

Additional Qualification Registered:

Allan, Leslie Stuart, Ch.B. Melb. 1901.
Baxter, James Morehead, Ch.B. Melb. 1901.
Bobardt, Albert Otto, M D. Melb. 1901.
Bonnin, Francis Josiah, Ch.B. Melb. 1901.
Buckley, Edward William, Ch.B. Melb. 1901.
Bull, Richard Joseph, M.D. Melb. 1901.
Campbell, Donald Albert, Ch.B. Melb. 1901.
Catford, Harold Robert, Ch.B. Melb. 1901.
Crellin, Bertram, Ch.B. Melb. 1901.
Embley, Edward Henry, M.D. Melb. 1901.
Formby, Henry Harper, Ch.B. Melb. 1901.
Forster, Arthur Edward Blackett, Ch.B. Melb. 1901.
Gillespie, Leslie Thomson, Ch.B. Melb. 1901.
Groves, Wesley Rainford, Ch.B. Melb. 1901.
Harper, George Craig, Ch.B. Melb. 1901.
Hollow, Joseph Thomas, Ch.B. Melb. 1901.
Joske, Alexander Sydney, M.D. Melb. 1901.
Kilvington, Basil, M.D. Melb. 1901.
Lei ch, Oliver, Ch.B. Melb. 1901.
Lewis, James Brook, Ch B. Melb. 1901.
MacKenzie, William Colin, M.D. Melb. 1901.
Magin, Frank Hhmphrey, Ch. B Melb. 1901.
Major, James Perrins, Ch B. Melb. 1901.
McLean, Donald, Ch.B. Melb. 1901.
McLean, Thomas Alexander, Ch.B. Melb. 1901.
Miller, Lindsay Stevens, Ch.B. Melb. 1901.
Murphy, Thomas, M.D. Melb. 1901.
Nish, James Alexander David, Ch.B. Melb. 1901.
Orr, William Francis, Ch.B. Melb. 1901.
Owen, Arthur Geoffrey, Ch.B. Melb. 1901.
Player, Charles Richard, M.D. Melb. 1901.
Putnam, Philip Timothy, Ch.B. Melb. 1901.
Ryan, Thomas Francis, Ch.B. Melb. 1901.
Sabelberg, Charles Joseph, Ch.B. Melb. 1901.
Shackell, Percy Moira, Ch.B. Melb. 1901.
Shahan, Septimus George, Ch.B. Melb. 1901.
Shields, Douglas Andrew, M D. Melb. 1901.
Shorney, Herbert Frank, Ch.B. Melb. 1901.
Sinclair, Thomas Walker, M.D. Melb. 1901.
Skewes, Samuel Greville, Ch.B. Melb. 1901.
Smith, Julian Augustus Romaine, M.D. Melb. 1901.
Stone, Emily Mary Page, Ch.B. Melb. 1901.
Teague, Harold Oscar, Ch.B. Melb. 1901.
Ulbricht, Waldemar Harold, Ch.B. Melb. 1901.
Vale, Grace, Ch.B. Melb. 1901.
Walsh, Gerald, Ch.B. Melb. 1901.
Webster, Charles Franklin Garcia, Ch.B. Melb. 1901.
Williams, Charles Emmanuel, Ch.B. Melb. 1901.
Wilson, Charles Ernest Cameron, Ch.B. Melb. 1901.
Wood, William Atkinson, Ch.M. Melb. 1901.
Woods, William Cleaver, M.D. Melb. 1901.

WESTERN AUSTRALIA.

Harley, William, L.R.C.P. Edin. 1872; L.R.C.S. Edin. 1872; L.S.A. Lond. 1872.
Hicks, John Sydney, M.B. Lond. 1888; M.D. Lond. 1890.

Additional Qualification.

Butler, Frederick Stanley, B.S. Melb. 1900.

BIRTHS AND DEATH.

BIRTHS.

ALCORN.—On the 20th June, at East Maitland, N.S.W., the wife of Dr. S. A. Alcorn, of a son.
GADEN.—On the 7th June, at Grenfell, N.S.W., the wife of Dr. F. H. B. Gaden, of a son.
HENRY.—On the 17th June, at Grafton, N.S.W., the wife of T. J. Henry, F.R.C.S.E., of a son.

DEATH.

PARKER.—On the 6th July, at her residence, "Thanet House," 93 Redfern-street, Redfern, Lucy, the beloved wife of Joseph Parker, L.R.C.P. and S., etc.

TRAINED MALE NURSE seeks engagement in mental or ordinary medical cases. Has had considerable experience in mental nursing, and is accustomed to travelling with patients to Europe and in the Australasian states. Unexceptional testimonials. References kindly permitted to Drs. F. N. Manning, Jarvie Hood, W. E. Warren, T. S. Dixson.

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For Telephone No., see July list.

AUSTRALASIAN MEDICAL GAZETTE.

ORIGINAL ARTICLES.

THE CLIMATE OF THE COAST OF NEW SOUTH WALES IN RELATION TO PULMONARY TUBERCULOSIS.

By W. Camac Wilkinson, M.D. Lond., M.R.C.P., Lecturer on Medicine (late Lecturer on Pathology), Sydney University; Hon. Physician Prince Alfred Hospital, Sydney.

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The problem of selecting a suitable climate for various cases of pulmonary tuberculosis is constantly presenting itself to us in our daily practice, and its proper solution may after all defy all the enquiry and thought and discrimination that we bestow upon it. Each one has, in a sense, to work out the problem for himself, and as the x, y, z's have a varying value, exact comparisons are hardly possible. My own conclusions are so completely at variance with the current opinions of the hour—opinions firmly rooted in the minds of some of our leading practitioners, and more or less clearly reflected in the mind of the laity—that the time has come for me to give reasons for the faith that is in me; if so be we may thus at least gain a clearer insight into the complexity of the problem and realise that the vision of truth is still very far off.

In Europe, climate as a factor in the treatment of disease, has been studied on more or less haphazard lines in the numerous sanatoria, watering places, and institutions that are scattered in all directions, but even at these places vested interests may militate against the discovery of truth; yet gradually, with the progress of time and knowledge, special climates have, by implication, been stripped of the great virtue that was once thought to be their exclusive possession. Accessory conditions, such as fresh air, sunshine, careful diet, graduated exercises, massage, and the continued use of mild drugs acting on different organs, are now claimed to possess the royal virtue originally credited to climate.

In Europe one observes a similar change of opinion as to the value of climate in the treatment of pulmonary tuberculosis. In Australia we have not even the experiences of sanatoria to help us. In spite of the existence of Mr. Goodlet's noble work at Thirlmere, a sanatorium at Echuca and at Mount Macedon, and one at Roma, we have very little positive relevant evidence on which we dare express any but a haphazard opinion as to the value of climate in the treatment of pulmonary tuberculosis. The cautious will therefore hold their opinions in reserve, and shun that dangerous form of dogmatism that is often rampant when truth is entirely beyond our reach, and logical methods are not equal to the task of proving our errors. On the now-a-days all important problem of the relation of climate of any or every sort to the treatment of pulmonary tuberculosis in the early stages, dogmatism cannot help us, and will probably lead us astray. As yet it is hardly possible to define precisely what we mean by the early stage of lung tuberculosis. I should like to restrict this term to the stage of the disease before tubercle bacilli are present in the sputum—when the tuberculous lesion is still closed or shut off from the external world, represented by the air passages. This definition would have this advantage, that medical men and laity alike would understand the form of tuberculosis under discussion, and would also have it firmly impressed on their minds that the disease may have possession of its victim months, and even years before the obvious symptoms of the disease develop. At present many medical men and the laity consider that pulmonary tuberculosis of necessity causes fever, cough and wasting. On the contrary, it is true that tubercular disease of the lung may never show its existence by any symptoms, as *post-mortem* examinations continually testify, and in other cases may exist for a very long time without even attracting the attention of patient or doctor. It is not impossible that medical men often raise groundless fears about weak lungs, and on the other hand overlook the existence of disease that can be recognised by proper methods. If tubercle bacilli are found in the sputum, the stage is relatively late, and the golden opportunity for treatment in the early stage may be lost. In this early stage there may be no fever, no expectoration, even no cough. I have seen a case of close tuberculosis involving a large part of the upper lobe of the right lung in a man who for years searched the globe in vain for the climate that would make him well. Physical signs were altogether out of proportion to his local symptoms. On the other hand there may be but slight physical signs till a hæmorrhage unexpectedly occurs, and too often the first stage rapidly passes into the second stage, usually with the signs and symptoms of secondary infection. Such cases are totally unlike in every respect, and yet they are both cases of closed tuberculosis till the hæmorrhage blots and blurs, and may ruin for ever the pure type of the process. Otherwise such cases are cases of pure tuberculosis. Again, in tuberculosis involving the pleura, the first positive evidence of the disease may be acute pleurisy suddenly attacking a person apparently in sound health, and soon developing into pleurisy with rapid effusion and all the accompanying trouble and danger; or, on the other hand, there may be extensive disease of the pleura without any acute process, but ending in adhesions and thickening, sometimes running a latent course for a long time. This state, then, in which expectoration hardly occurs—and tubercle bacilli are absent from the expectoration—is the basis of classification for many, especially in the most modern sanatoria for the cure of tuberculosis among the poorer classes. If this stage is past the case is rejected (Weicker). As soon as tubercle bacilli enter the air passages and escape in the expectoration, there must be destruction and disintegration of the lung tissue at the surface, and then the risk of secondary infection is imminent. Till then the process is tuberculosis pure and simple. Then it is that the flood gates are open, and organisms of various kinds, streptococci and diplococci mainly may find a suitable nidus for growth and development in this disintegrated tissue, whence the tubercle bacilli escape. As tubercle bacilli leave, the organisms of septic processes enter by the door, and the whole character of the process is profoundly changed. No doubt this secondary infection that brings the process to the second stage may be long delayed, especially in pure air, by conditions that we little understand, but once it is established fever shows itself, and on the chart this infection asserts its origin by its zig zag course. Anæmia, wasting, sweating, diarrhœa, and other symptoms may in the course of a few weeks demonstrate the severity of a twofold toxæmia. There may even be a degree of septicæmia. But even at this stage the case may not be hopeless. Change to a pure air in the mountains or plains —or at the sea-side—with other measures, may get rid of the secondary infection, and the tuberculosis making a pretence of slumbering for a while, may progress so slowly that it causes hardly any symptoms. The expectoration diminishes—even tubercle bacilli may disappear, and in favourable cases the lung heals. Thus the disease may pass from the second to the first stage. More often the expectoration is scanty, and some few tubercle bacilli can be found. The disease may seem to be in the first stage though it is in a latent second stage—ready at any moment to become aggravated. It may require all the bacteriological skill of the physician to recognise this latent second stage. Often this *latent second stage* is nothing else than the passive secondary infection of other authors. In this stage the search for elastic fibres may help immensely in the diagnosis. Even after considerable destruction of lung tissue with the formation of irregular cavities the process may regress, and in rare cases end in healing of the ulcerated surfaces. Again, the process may return to the phase either of a latent second stage or even of closed tuberculosis. For many, then, this state is the criterion. When the tuberculosis is thus closed, the first stage of the disease exists. I am convinced that if we can only provide a sanatorium for the treatment of these cases by the most modern methods the public will have no reason to withhold its support from the philanthropic scheme that has been inaugurated for the treatment of tuberculosis among the poorer classes. I hope that I have given some precision to the otherwise loose and indefinite condition known as the early stage of pulmonary tuberculosis.

If my definition is accepted, I may state at once that we have no evidence for or against the value of this or that climate in pulmonary tuberculosis in the early stages. This basis of classification has not existed, and it is idle to suppose that any physicians in Sydney or Australia have investigated the effect of different climates on this stage of tuberculosis. But even interpreting the early stage of pulmonary tuberculosis in the ordinary vague and varying sense, we can hardly get nearer the truth, for no physicians in Australia have attempted to discriminate between the effect of climate on these cases as distinct from other cases. At present we are not in a position to form any opinion of our own, much less is there any ground for dogmatism. Most physicians diagnose tuberculosis of lungs by fever. That symptom alone, if of moderate severity, is generally sufficient to show that the case does not belong to the early stage of simple tuberculosis. In judging of the effect of climate upon the course of pure tuberculosis of the lungs; in other words, of pulmonary tuberculosis in the early stages, we must carefully put out of view the effect that is produced by climate, mountain or other, upon the second stage of tuberculosis, when secondary infection with fever, is the dominant and grave condition. Any line of reasoning I use, leaves out of consideration the disease in the second stage when secondary infection is so common. On this phase of the question I have already explained myself. (See *Australasian Medical Gazette*, August 20th, 1897). How then are we to form an opinion concerning the effect of any climate upon the first stage of tuberculosis of the lungs? As we have no trustworthy evidence of our own, we may learn something from other sources, and especially from the views of recognised authorities. Thus we may be in a position to form some general conclusions that will guide us in condemning or favouring the sea coast of New South Wales in dealing with the early stages of tuberculosis of the lungs. It is well to say at the outset that we have no evidence to show how the climate of the sea coast affects early tubercular disease of the lungs. Those of the older physicians who may be inclined to dispute this assertion, hardly resort to the systematic examination of sputum for tubercle bacilli in their everyday practice. If they use this method, they use it when it is hardly necessary. *Negative evidence* unless obtained by the methods of the skilled bacteriologist, has no great value. Tuberculin as a diagnostic agent is not used at all, and the physicians, who cling to the old views, have neither the experience nor the knowledge necessary to determine the diagnosis of secondary infection. But my main objection is of a more serious kind. Whatever may be said to the contrary, it is certain that no observations have ever been made discriminating between the effect of the climate of the sea coast and the effect of the density of population in Sydney and Newcastle. The physicians in Sydney have attributed to the climate of Sydney and the coast effects that distinguish, and are a necessary accompaniment of all crowded populations irrespective of site or climate. It needs no argument to prove that Sydney, as a dense centre of population, will not show as good a record as other districts with sparse and scattered populations, but the effect is not at all the effect of climate, good or bad, but the effect of that crowding of masses and accompanying conditions of life that militate against health and specially favour the spread of infectious diseases, even of tuberculosis of the lungs. A fairer comparison may be drawn between Sydney and cities in the world of similar population. Such a comparison shows beyond doubt that so far as the incidence of tuberculosis of the lungs in the community is concerned, Sydney is one of the most favoured cities in the world, the incidence of tuberculosis of the lungs being less than 1 per 1,000, according to latest returns It is at least a fair argument to use that the relatively low incidence of tuberculosis in Sydney must be due to some special favouring local conditions, and one might even state that the climate of the sea coast, mild and equitable throughout the year, is a factor in this relatively fortunate result. But soil and situation are factors. Until it is proved to be otherwise, I see no other logical conclusion than that, were it not for the density of population, Port Jackson itself would form an admirable site for a sanatorium. And this conclusion is strengthened when we examine the incidence of tuberculosis in districts that possess a climate like that of Sydney, but lack the crowded population. The North Coast and South Coast districts will serve for such comparisons. These districts contain many small scattered towns, such as Grafton, Lismore, Kiama, Wollongong, Nowra, and others, and have an aggregate population of about 140,000. They show an incidence of one death from tuberculosis in every 2,730 living persons. New England, with a population of 63,300 shows an incidence of one death from tuberculosis in every 3,720; Namoi and Gwydir, one per 2,360; Young and Gundagai, one per 2,470; Bathurst, one per 2,180; Hunter, one per 1,830; Mudgee and Argyle, one per 1800; Murrumbidgee, one per 1,300; Murray, one per 1,490; Western districts, including Broken Hill, 1 per 470. In England, which is *facile princeps* in the application of hygiene to the needs of the nation, and enjoys, also the honour of presenting the lowest death rate from tuberculosis among all European nations, in spite of the fact that it is sea-bound and has no mountains worthy of the name, in spite of its rain and wind and fog, its want of sunshine and its uncertain climate, in England the death-rate from tuberculosis is one per 737 living persons, in United States (28 larger towns) one per 400 living persons, in New South Wales, one in 1,200.

At the great German Congress it was stated that Buenos Ayres showed the lowest death-rate of all the large states of civilization—1·62 per 1,000 inhabitants—one death per 630 inhabitants. Sydney is better than Buenos Ayres—one per 1,080 (1900)—and, therefore, in regard to its mortalily from tuberculosis shows the lowest record of all large cities. The learned German knew nothing of Sydney's fortunate best on record. Buenos Ayres, with a population of 567,542, lost 1,876 from pulmonary tuberculosis in the two years 1892-3. The metropolis of Sydney in 1899-1900, with a population of 480,000, lost 926. Roughly speaking, there are three deaths in Buenos Ayres from tuberculosis of the lungs for every two deaths in Sydney from the same cause Sydney alone of all great cities shews a rate of less than 1 per 1,000. It is worth while mentioning too that comparing the largest cities in the world in which population exceeds 500,000, the towns on the sea-board shew the lowest mortality from tuberculosis, Buenos Ayres, Naples, Amsterdam, London, and Hamburg. Accordingly sea air in the northern hemisphere—even in the warm Mediterranean—in no way favours the tubercular process. Even in the southern hemisphere Buenos Ayres is no exception. If therefore it is asserted that sea air in our region of the southern hemisphere brings disaster to cases of tuberculosis, we may surely ask for something more than assertion—we want proof. So far as I am able to sift evidence the proof is quite the other way. A simple analysis of the death rate from tuberculosis in the districts of Sydney, which I take from the valuable and laborious commentary of Dr. W. G. Armstrong, Medical Officer of Health, confirms my views in the most startling manner. The combined districts of Vaucluse, Mosman, Hunter's Hill, and Lane Cove, with a total population of 10,575 had not one single death from tuberculosis to its account in 1899—a very remarkable record, shewing at least that the sea air on the coast does not favour tuberculosis. Randwick, with a population of 8,225 shews only a rate of 0·24 per 1,000 in 1898, *i.e.*, less than 1 in 4,000, a far more favourable rate than exists in any country district. Manly also has a low rate.

If, then, we compare, not the districts of the wealthy, but the districts of the poor, we find that Balmain last year, with a population of 28,675 distributed with a density of 32 to the acre, has only a rate of 1·05 per 1,000. This favourable rate is a strange commentary upon the present views of the profession with regard to the injurious effects of the sea air and sea coast upon tuberculosis of the lungs.

Let us now turn to the coastal districts of New South Wales. In what way a climate, that presents a low general mortality affects tuberculosis of the lungs it is difficult to say, but probably, if a climate is very favourable to general health, it will not be unfavourable to those suffering from early tuberculosis. The North and South Coasts present incomparably the lowest death-rates of all the districts in New South Wales—North, per 1,000 in 1897-99—7·1, 6·9, 7·9. South Coast, 6·8, 6·8, 7·7. No other districts approach these districts in the low death-rate. New England comes next with a rate of 8·2, 9·8, 10·1 per 1,000.

There is another thought worthy of attention. If there is one firmly-rooted conviction in the minds of all who have considered the question it is that predisposition plays an important part in the origin of pulmonary tuberculosis. Some exaggerate the importance of this factor, hardly anyone refuses to recognise it. We can hardly explain the nature of this disposition of tissue to invasion by the tubercle bacillus, nor have we a right to say that this or that nation exhibits a greater disposition to the disease. Yet, if we hold that predisposition shews itself in families or groups, we should be able to apply this view on a larger scale to nations. In such a case we might well argue that the British race exhibits less predisposition than any other race, because the British nation suffers less than any other European nation. The French nation suffers twice as much from tuberculosis, and Russia three times as much as Great Britain, at any rate in the large centres of population. As soon as we begin to argue that other conditions account for this difference we are at once knocking the bottom out of the view of predisposition. If, however, we accept the doctrine of predisposition as the first factor of importance, as some still maintain, our nation—the grand old British race—shews collectively a far lower degree of predisposition than other nations. Switzerland with its mountains and their vaunted power against tuberculosis shews an incidence of tuberculosis in the population of 2,031 per 1,000,000; England, 1,358 per 1,000,000; New South Wales shews an incidence of 806 per 1,000,000 souls. The conditions in New South Wales modify the incidence of disease among Englishmen and their descendants. In New South Wales every year there are 500 fewer deaths per 1,000,000 from tuberculosis than there are in England. Now if predisposition means anything it means some definite and permanent character of tissue. It can have no particular meaning if it can disappear in a generation. Experience seems to tell us that the disposition to tuberculosis is consistent with robust health and fine physical development. We are therefore not justified in believing that the conditions in New South Wales suddenly modify the predisposition of Europeans to tuberculosis. For no reason at all the idea gained currency that the Australian born were more liable to tuberculosis than their English born parents. This is just a fair example of the readiness with which people indulge in reckless theories that rest on no foundation at all either of observation or fact, and may live as long as careful observations on the point at issue are wanting. There is hardly any more substantial basis for the view that the sea coast of New South Wales is not suited for cases of pulmonary tuberculosis. On the other hand we must not flatter ourselves with the notion that the mortality statistics from tuberculosis in New South Wales are vitiated by the intrusion of a number of imported cases of tuberculosis. In 1899 there were 1,069 deaths from tuberculosis Of these no less than 600 were born in Australasia; 220 more had lived in Australasia twenty years or more; 165 more had resided in Australia ten to fifteen years; while only 58 had been less than five years in Australia. We are justified in saying that ninety per cent. of the cases had their origin in Australia, while sixty per cent. were among the native born. It would require a careful analysis of living persons who are native born and importations to show whether the native born show a greater or less disposition than the European. Now, if the predisposition exists in the same degree in the British race, whether imported or native born, we must hold that there is still a large contingent of persons prone to the disease. The disease has not yet attacked the full complement of predisposed. The soil is ready, but the seed has not been sown. In our community above all others, every effort should be made to prevent the disease extending its ravages to the full complement of predisposed. In short, prophylaxis will be of even greater benefit in Australia than in the older countries. Yet we are behind the world in measures of prophylaxis. There is not even a general hospital for consumption, which educated public opinion should urge the Government of the State to establish, in order to diminish in some measure the numerous foci of infection that are a source of danger to those who live on terms of close intimacy with those suffering from the disease.

It is interesting also to observe the mortality rates in Victoria and Melbourne respectively, and in Queensland and Brisbane and compare them with those of our own State. In 1899 the death rate in Queensland was 12·07; in Victoria, 14·28; in New South Wales, 11·82. In Melbourne, with a population of 470,000 the rate of mortality from tuberculosis of the lungs has varied from 948 to 654, the average being above 700. In Sydney, with the same population, the annual death rate from the same cause, is 481 (1899.) This excludes ninety cases that died in the Liverpool Asylum, of which the majority belong to the metropolis. Even allowing the rate in Sydney thus corrected to be 560, we find a difference greatly in favour of Sydney. The conditions of life in Melbourne kill by tuberculosis, 180 to 200 more persons every year than the condition of life in Sydney. Is this an argument for protection? The same advantage is evident also in the conditions of life in the colony generally. Victoria loses every year from tuberculosis, 300 to 600 more than New South Wales, even though the population of New South Wales is greater. In Queensland and New South Wales the death rate from tuberculosis is about the same, while Brisbane, with its smaller and far more scattered population, shews a better record than Sydney, 1 in 1,490. Indeed, relative to the population, the death rate in Brisbane is better than that of the colony taken as a whole; if indeed the area of the city is the same for the collecting of mortality and population statistics. There may be some local conditions, such as the situation of institutions outside the city area that would place these deductions from statistics in a different light. If, however, these statistics are correct, *Brisbane has an enviable position with regard to tuberculosis.* I know no other country in which the rate of deaths from tuberculosis is relatively less in its capital than in the remainder of its population from the same cause. So far as these figures serve us, we find that a low general mortality means a low mortality from tuberculosis; indeed, that the mortality from tuberculosis is an index of the general health of the community, and conversely we may say that when the general death rate is low, then the rate from tuberculosis will be low. No country in the world can shew a lower death rate from tuberculosis than New South Wales, and in New South Wales the coastal districts show a better record in this respect that any other district with the single exception of the New England district. *Even the New England district shows a rather worse record than the South Coast in respect to the incidence of tuberculosis of all forms.* But no other districts approach these districts in their relative immunity from tubercular disease. The coastal districts further show a far lower death rate from pneumonia, bronchitis, and other diseases of the lungs. In 1899 there were ninety-six deaths from pneumonia and bronchitis in New England (population 63,290), but only thirty-four deaths in the South Coast (population 62,740), and forty-nine deaths in the North Coast (population 78,300). Diseases of the lungs are a good index of the variability of the climate. In no other district is the incidence of diseases of the lungs so small as in the coastal districts. These statistics undoubtedly seem to establish the fact that the climate of the North and South Coasts is unusually propitious, and inasmuch as the incidence of tuberculosis in these districts is lower than in any other district I personally shall require further evidence before I give up the attitude I have long adopted in recommending strongly the coastal districts of New South Wales for the treatment of tuberculosis.

I wish, therefore, to put forward the following proposition:—"That the air of the seacoast of New South Wales, far from being injurious to those suffering from pulmonary tuberculosis in the early stages, is beneficial, and may have as much curative virtue as any other climate in the world." This proposition is well worthy of discussion and of a collective investigation by this Association.

I have shown that in this coastal climate there are fewer deaths from tuberculosis per 1,000 than in any other part of New South Wales. In 1897 there were only twelve deaths from tuberculosis in the population of 78,300 in the North Coast district. The conditions, therefore, cannot favour the disease nor hasten its course. The mild equable climate, free from great variations in temperature, and with a cool refreshing north-east wind from the sea supplying relatively germ-free air during the hotter months, from January to April, and during the cooler months with winds that are less severe and more propitious than the cold, piercing winds of the mountains, with a mean summer temperature of 70° to 75°F., a mean winter temperature of 53.5°F., and a mean annual temperature of 63.2°F.—such meteorological conditions would *a priori* lead one to anticipate a favourable effect, while experience tells us in plain and unmistakable language that these conditions cannot be bettered anywhere in Australia, if in the world. No doubt we must be ready to meet and dispose of special pleading. My views are heretical, and, as happened in the days of the Inquisition and Galileo, such views can only win the day on the transparent basis of truth. I court inquiry; I seek for full investigation. Even if my views should prove in the end to be exaggerated or unsound, the investigation will give us a more excellent view of truth. I have no other interest in this matter than to seek and find the truth. *Prima facie*, my views, supported by the evidence of statistics, bear the semblance of truth. Until numerous facts and observations are collated and given their proper place and order, truth cannot be established. At present we have no evidence to the contrary that is worthy of the name, no evidence that would pass muster in a court of law, or even of reason, and I throw down the gauntlet as the champion of the new view that the sea coast of New South Wales is not unsuitable for the treatment of pulmonary tuberculosis in the early stages or even in the later stages. I have suggested that the low mortality from tuberculosis in Sydney and the coastal districts is evidence in itself that the conditions obtaining in these parts are of advantage in the treatment of tuberculosis, and should be exploited. There are those who even now hold the opinion that the low rate of mortality from tuberculosis in Sydney and the coastal districts *is*—not may be—in part the effect of medical and lay opinion in condemning these districts. As a consequence of this condemnation, so these special pleaders argue, those who suffer from tuberculosis in Sydney and near the coast pack up their portmanteaux and hie to the mountain districts or the plains, where they die. Thus Sydney presents a more favourable record, and the districts of immigration present a less favourable record than the conditions of the respective areas would justify. Such emigration and immigration, however, should have the result of showing a greater number of deaths from tuberculosis in the the country districts than would be found in other places and other countries of similar populations. On the contrary we find that the death-rate from tuberculosis in the country districts of New South Wales is not only not high but exceptionally low. I have also the support of Dr. W. G. Armstrong in saying that so far from the death-rate in the country districts being increased by this exodus of tubercular cases into the country, there is on the contrary an exodus from the country districts into the town. Dr. Armstrong writes: "Very many persons who died in Sydney hospitals came from country districts. Some few deaths of Sydney residents have occurred in country hospitals, but, he adds, the number of deaths occurring in the country which ought to be credited to the metropolis is, however, certainly insignificant." This may or may not apply to tuberculosis, as the statistics are purely the statistics of the Sydney hospitals. One may say that many go, or are sent to the country in the earlier stages, but few remain there to die. They seek the country, too often in vain, for a cure, but that failing, they return home to die. Certainly my own experience tells me that many of the worst cases I have seen have lived all their lives in the districts with vaunted climates. From west I have had many cases; from the North Coast, none; and but a single case from the South Coast. Now it is to work out accurately the problem in this direction that we should have a collective investigation. The investigation could be easily carried out by drawing up forms to be filled up by medical men in the various districts. The forms should be drawn up in such a way that the country practitioners should be able to state the number of cases that have *died* under their care, the birth-place, length of residence in the district, and such other information as will show the incidence of the disease among those who belong to the district and those who have come from other parts, especially from Sydney and other coastal towns or districts. It is very remarkable that the districts in the immediate neighbourhood of Sydney should present such favourable records. One would expect that residents in these districts would be more often exposed to the risk of infection by the mere proximity which facilitates intercourse with the population of the dusty and crowded city. Yet in one year the North Coast, including Grafton, Lismore, Ballina, Maclean, Bellingen, Port Macquarie, Kempsey, Casino, Taree, and other places, had but twelve deaths from tuberculosis in the whole district. There is at present not much to support such special pleading. However, until we have the results of a collective investigation such as I propose I am absolutely justified in holding the opinion that the district of the sea coast is as suitable as any other for the treatment of pulmonary tuberculosis in a properly equipped sanatorium. A sanatorium for the poorer classes should be in a situation within reasonable access of Sydney for many reasons. It can be built and maintained at the lowest possible cost. It enables the friends and relations of the inmates to visit the sanatorium without much cost. This will minimise the sense of isolation that may otherwise be a bar to the prolonged stay in the institution that is indispensable for satisfactory results. A happy state of mind contributes to success. Most important of all, there can be thorough supervision, even from Sydney. Of course a resident medical officer is indispensable, but I should hope that as in Vienna and elsewhere a central committee of medical men, of special knowledge and experience, should control and guide the principles of treatment in the institution. These are immense advantages that cannot be lightly set aside, because certain individuals, medical and lay, have the notion, formed from their own personal experience or from a limited and indiscriminate experience, that the mountain air has specific virtues. I grant that there is abundant testimony from the older physicians in favour of treatment at high altitudes. But the pendulum of opinion swings now in this, now in that direction. Not very long ago the older physicians firmly believed and taught that consumption was more easily cured in a warm climate than in a cold one. There was no foundation for this view, and accordingly cold climates in time came into fashion. Patients were ordered to go to the Andés instead of Madeira or Egypt. Yet Koch tells us that tuberculosis plays no part at all in the mortality among inhabitants on the east coast of Africa—in the heat of the tropics where malaria reigns supreme. The great pioneer of the rational method, Dr. Brehmer, of Goerbersdorf, strongly advocates mountain air on account of the diminished atmospheric pressure, of the lower degree of moisture, of the great wamth of the sun, of the intense sunlight, of the rarity of fogs, and the purity of the air, especially its freedom from microbes on account of the sunlight Sir Herman Weber admits that it is difficult to prove therapeutic results by statistics. He has seen 36 out of 144 cured—a misleading term—by mountain air. In 52 of the cases no improvement or downward progress to death. Better reports have appeared, especially those of Dr. Turban, but Dr. Turban and others have also adopted the rational method, based on dietetics, physical exercise and plenty of fresh, pure air. Dr. Turban, too, has spoken favourably of tuberculin treatment in his institution. No authority of any eminence claiming the specific virtue of mountain air, has ever attempted to differentiate between the effect of the mountain air and the effect of the numerous measures that constitute the rational system of Dettweiler, Dr. Brehmer's pupil and successor. Sir Herman Weber, who is the special advocate for mountain air, says that in cases of circumscribed lesions almost all climates can be exploited with good effect, though (he adds) in robust constitutions especially mountain climates and sea voyages. After pointing out indications for special climates, in which one observes that he highly commends warm climates with plenty of sunlight, he adds "The cure of tuberculosis in the early stages is possible in all healthy climates." Listen to this peroration: "But climate alone, without careful medical supervision is for the most part unsatisfactory. The blind faith of patients in climate leads often to failure, to progress of the disease and death. Therefore, for the majority of patients, treatment in sanatoria is to be preferred, but for the poorer classes is a necessity. The erection of sanatoria for the people is a national necessity for the cure, the prevention and the eradication of tuberculosis." Even Sir Herman Weber places greater virtue in the methods of the sanatorium than in any climate.

In the latest text-book on medicine we read: "It is only during the winter, however, that the climate of Davos, or of the Engadine has special advantages." In the still dry air patients can bear the great cold. Appetite is stimulated, and much food can be taken. The climate of Nordrach is by no means a climate that has any special advantages, if we accept the account of a physician who was cured at this famous sanatorium.

Dettweiler, disciple of Brehmer, is the great Apostle of sanatorium treatment on hygienic, dietetic and physical principles. The disciples of this, the latest school, in the treatment of consumption, set but little store on the effect of climate, whether of mountain, sea, or plain. To use Dettweiler's own words this new method consists in curing the disease by the method of rest and open air carried out in its smallest details according to the strength of the patient and the stage of the disease, even during the night. This system renders it possible to treat consumption in all climates free from extremes and even allows patients to remain at home. In detail, it consists in hardening the skin by proper use of air, light, water (baths, douches), moist and dry friction, massage, in gymnastic exercises of the chest and whole body, by climbing, etc., in a systematic application of all physical remedies, in exercise or the reverse, according to the state of patient—a system gradually and carefully adapted to circumstances in a manner that only a special institution can apply and control. This constitutes sanatorium treatment on a rational basis, that claims superiority over all other methods. Thus "the disease can be healed in all good climates with equally good results." This is the open-air treatment. It would not be right to call it open-air treatment if certain climates were necessary. Even some of our physicians loudly talk of open-air treatment and recommend it, and yet cling to the older view that the air of the mountains is necessary. Worse still, they argue that the climate of our coast is not suitable for this method. Those who preach this gospel have but imperfectly understood the new teaching. If one advocates the open air treatment, one must follow those whose experience has demonstrated its value, independent altogether of special climates. We entirely misunderstand the experience and teaching of the new school if we say that a sanatorium for the people should be erected in the mountains rather than near the coast. In my limited experience I should hesitate to send patients to our mountains, with their variable climate, their mists and their cold winds. A few robust men and women might do well. I doubt if the mountain climate would suit the majority as well as the mild climate of the coast. Turban, whose Sanatorium is at Davos, writes that Dettweiler has especially accomplished the great task of demonstrating that the carrying out of the open air method is not bound up in any special climate. Even the increase of the red corpuscles and of the hæmoglobin value of the blood—with increase of volume—such as may be the result of high altitudes, is after all a compensating process with a physiological explanation. The most modern sanatoria have not been erected at high altitudes—Falkenstein, Hohenhonnef, Nordrach, Alland, near Vienna, the Sanatoria near London, Edinburgh and Liverpool, in effect disregard the value of mountain air. Dr. Sydney Jones has himself mentioned statistics from open air treatment near London, which we may strive to imitate but can never excel. Dr. Sydney Jones stated that 75 per cent had been cured. They will never record such statistics again. Yet the climate of the sea coast of New South Wales is as favourable as that of London; I should say far more favourable. I could quote authority after authority, emphasizing the great value of sanatorium treatment, and by implication paying little attention to mountain air as an appreciable factor in the new treatment of pulmonary tuberculosis. The new treatment consists essentially in open air, dietetic regulations, and physical training. Of quite subsidiary importance is the air of the mountain, of the sea, or of the plain.

I might even, with reason, venture to discuss a second proposition, viz., that the climate of the mountains near Sydney, Katoomba, Mount Victoria, etc., is not as suitable as the climate of the coast for sanatorium treatment, but I wish chiefly to test the truth of the firmly rooted opinion that the climate of the sea coast is not suitable. If we arrive at the conclusion that this climate is eminently suitable for a sanatorium for consumption, there are very great obvious disadvantages in erecting a sanatorium on the mountains. The want of a good water supply, the difficulty if not impossibility of keeping cows for the all important milk supply throughout the year, the difficulty of growing vegetables and fruit trees, which would in other places offer good and pleasant occupation to the inmates of the institution, are among the most obvious disadvantages. Hence the selection of a site in the mountains can only be justified, when it can be shewn that these disadvantages are more than counterbalanced by the virtues that have not yet been proved to exist in the air of the Blue Mountains.

Long established error is often a vigorous weed that blights every healthy growth, and can only be uprooted by dint of much labour and patience. If error is closely intertwined with vested interests or personal reputations, it may be difficult to kill the parasite, but the demands of truth and the public interest far transcend in importance either vested interests or personal reputations. Otherwise, the fallacy, if, indeed, it be such, that now possesses the public mind, might well be left to die without a murmur—without a regret. If my views should ultimately win the day on the eternal basis of truth, the public gain will be great. Many an unfortunate victim may still have to bear his disease, but he need not suffer exile in strange and distant places, where he is bereft of the pleasures and comforts of society, even of the necessaries of a healthy and happy life. Surely, in the interests of the whole community, we should lose no time and spare no energy in discovering, by a collective investigation, whether I am right or wrong in saying that neither experience nor facts justify the profession and laity in perpetuating a gross libel upon the beautiful and health-giving climate of the sunny coast of New South Wales.

(*For discussion on this paper see p. 333, also Editorial p. 340, and Letter p. 344*)

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THE OPEN-AIR TREATMENT OF CONSUMPTION.

By Arthur H. Gault, M.D. Lond., Lower Mitcham, S.A.

So much has been written on the subject that one despairs of saying anything new, and my only qualifications for opening this discussion are, that I have had five years of experience of Sanatorium Treatment in South Australia, and recently have had an opportunity of studying the subject at the leading Sanatoria in Europe.

In spite of many objections to the term open-air treatment, it still holds its own. Hygienic might be more scientific, for a copious supply of fresh air is only one of the cardinal elements, a superabundance of good food and a proper apportionment of rest and exercise are also essentials.

It is agreed by most authorities, that this treatment, so simple in theory so difficult in practice, can only be properly carried out in a Sanatorium constructed for the purpose, and under continuous medical supervision. And when one sees the care and precision with which the treatment is carried out at an institution like Nordrach, one feels more than ever the necessity of Sanatoria. Just as there may be a few students who may master a subject by private tuition, but for the vast majority, schools and colleges are necessary, so there may be a few strong minded persons who can independently carry on their own treatment successfully, yet for the majority of patients, the regimen of a Sanatorium is essential; when once the principles of the treatment have been mastered, the patients can follow it out more or less fully in their own homes.

Every practitioner can give examples of consumptive patients restored to health by change of climate or the adoption of some simple hygienic treatment in their own homes, but they must confess that the successes are very few, the failures many, and one continually meets with cases where, in spite of the exceptional advantages of the climate of our northern areas, the results are most disappointing.

Just let me say a word about the treatment by tent-life. Theoretically one would say a tent was about the worst place to practise the open-air treatment, affording as it does the minimum of ventilation, with the maximum of exposure to climatic changes. I was called the other night to see a patient who was practising the so-called open-air treatment by living in a tent; all I can say is that I have seldom been in a room with an atmosphere more foul; don't recommend tents, you can only live in them in summer, in winter they are too close or too cold.

In England to-day there are two types of sanatorium treatment—the Nordrach and the Non-Nordrach—between the extremes a great many shades. To understand the two types it will be necessary to dwell in detail on some of the characteristics of the Nordrach treatment.

It was at Goerbersdorf, under Dr. Brehmer, that the modern sanatorium treatment of consumption was first worked out successfully, and Dr. Walther, of Nordrach, adopted the Brehmer method with certain modifications of his own, and though he has never written on the subject, he has so stamped his individuality upon these modifications, that the treatment, according to Dr. Walther, is well known throughout the medical and lay world. Before visiting Nordrach one was inclined to think that this notoriety was principally due to some well written magazine articles, but having seen his methods and having had some opportunity of judging of his results, one feels convinced that his fame is well-earned. Dr. Walther does not think any special climate essential, yet he inspected hundreds of sites before deciding on Nordrach, for which he claims a wonderfully pure atmosphere and freedom from dust, to ensure this it is necessary to be a long way from the centres of population, the good average rainfall is credited with the fact that the air is free from dust. The position is a good one, a valley opening to the south 1400 feet high and closed to the north by the thickly timbered ranges of the Black Forest rising three or four thousand feet, thus it is well protected from north, north-east, and north-west winds. The absence of strong winds is an important matter; it has been proved that the death-rate from consumption is higher at places exposed to strong winds; and if a patient is to remain outside in all weathers the absence of strong wind is of first importance. It was July when I visited Nordrach, and I must say the valley seemed very bright and cheerful, though I could imagine that in winter it was dull enough. The buildings which go to form the Nordrach colony make no pretence at architectural beauty, the old ones being transformed workshops, the new ones built of wood, which is so plentiful in the district, and lined with matchboard, oiled and varnished. The doctor's small stone house is at the top of the valley overlooking the other buildings. The bedrooms are arranged in several detached blocks, simply rows of rooms facing south with a wide corridor behind. There are no verandahs and no liegehallen (or quarrelling halls), one dining-hall, a large roughly built structure, quite open up both sides. In winter the windows are put in on one side or the other according to the direction of the wind. The bedrooms are plain but a fair size, 12 x 12, only ten feet high, with two or three French windows in each room with fan-lights over each. Besides the bed, each room has a couch, chairs, two lavatory basins with hot and cold water, a douche, and a hot water coil, and is lighted by electricity.

Patients take their own temperatures in the rectum four times a day, before rising, after morning and afternoon walk, on going to bed. All patients rest an hour before meals, the doctor visits each two or three times a day in their own rooms, and plans out for them the amount of exercise they must take. This must involve a good deal of work even for 45 patients, but Dr. Walther has the assistance of another resident medical man, one who has suffered from consumption.

The special points in the Nordrach system are (1st), the absence of all excitement; there are no verandahs, patients resting, do so in their own rooms alone. No amusements are permitted, even novels must not be too exciting. (2nd) As to the *Diet*, only three meals a day are allowed, but they are good ones, and the patients are pressed to eat as much as they possibly can. Breakfast, 8.30; dinner, 1.0 Two courses of meat, plenty of vegetables with butter and white sauce, puddings, pastry, biscuits and cheese. Patients often take an hour and a half over this meal, everyone must finish his helping, and are supposed to eat twice as much as they feel inclined to Supper, etc., like breakfast, plenty of meat and butter. At first each patient drinks a pint of milk at each meal. English patients often object to the food, smoked meats of various kinds enter largely into the dietary.

Thirdly, regulations as to rest and exercise, all patients stay in bed the first week, then if their temperature is not over 100 4° at night they are allowed a short walk, they are warned to walk very slowly, never to get out of breath or over-heated; along the walks are wooden benches where they can rest, if after walking the temperature goes up over 100·4° then the amount of exercise is diminished. All patients must lie in their own rooms an hour before each meal. The characteristics of the Nordrach treatment are (1) overfeeding; (2) rest alone; and (3) graduated exercise. Everything is plain Spartan-like, no nurses, no games or amusements, and yet I must confess from what I saw of the patients, a happier and jollier set of invalids could not be found. Dr. Walther takes cases at all stages, he told me that not more than 10 per cent. are free from cavities, and yet 30 to 40 per cent. are turned out cured, and cured means absence of physical signs of active disease and absence of bacilli from sputum tested by staining and inoculation.

In estimating the results obtained at Nordrach one must remember that the patients must be strong enough to stand a long railway journey, and drive of nine miles, and it is probable that some go who cannot take the food provided and leave in a few days; but the majority go there with the firm conviction that they will be cured and a determination to give the treatment a fair trial. However much we may try to discount the results, there is no doubt they are better than any obtained elsewhere, and that anyone who will manage a sanatorium successfully must follow Dr. Walther's teaching to a great extent.

Hohen-honnef, another German Sanatorium which I visited, may be taken as the representative of the other type of sanatoria. This institution is placed in one of the most beautiful parts of the Rhine valley, readily accessible from London. The building is a very fine one and luxuriously furnished. It cost between five and six hundred pounds per bed. Everything about the place is on a most lavish scale. Liegehallen of every description; some can be artificially cooled in summer or heated in winter, lighted by electricity, some which can be rotated, large enough to hold twenty patients. The dining-hall is a beautiful room, decorated with carved wood panels and provided with a gallery for an orchestra. The food is that of a fashionable hotel, with frequent meals. Patients receive every attention from three resident medical men to about one hundred patients, and any number of attendants. The grounds are beautifully laid out, the climate is good and the scenery unsurpassed. The idea of open-air is very different from that of Nordrach There is very little discipline; the patients can do as they like, take what food they prefer, take exercise or rest as they feel inclined, open and shut their windows as they wish.

It would be useless to describe in detail, English Sanatoria, they are all copies, more or less of the German ones. A great many pride themselves on being exact copies of Nordrach, and there is little doubt that the Nordrach idea is the most popular at the present time.

I would like to discuss, briefly, the treatment as carried out in the English Sanatoria, under three headings.

1. Open Air.—These words have a different meaning in different places. The most extreme open-airists are those connected with the North London Consumptive Hospital where the wards recently constructed, are simply wide verandahs, the fourth side being open right up to the ceiling, canvas blinds being provided for rough weather. In such a ward over-crowding is almost impossible, and heating apparatus useless. In damp weather the beds are covered with American cloth, or the bed clothes would be wet through. The result of last winter's experience was very satisfactory, the patients did well and liked it. A warm dressing room is required, for even Dr. Walther allows the windows to be closed while the patient is dressing. Though none of the private Sanatoria go so far as the North London, they all have ample window space. French doors or windows with fan-light over them going up to the ceiling, each room being provided with a radiator. It is found that no amount of cold air does any harm as long as the body is not chilled, but in choosing a site, strong winds must be avoided. In the northern hemisphere a somewhat elevated valley is selected, sheltered to the north and opening to the south, but anywhere near Adelaide such a valley would be unsuitable owing to the prevalence of gully winds. Colds are rare in sanatoria, but when they do occur they can be traced to infection, and often attack a large proportion of the inmates.

2. Food The general feeling in England is that the Nordrach system will not suit most patients. Three principal meals are provided, plenty of nitrogenous food, butter, cream, and milk. Dr. Walther's contention that febrile patients should take the same kind and amount as non-febrile, is generally accepted. The interesting researches published lately showing that large doses of urea, 40 to 50 grains administered daily, have a powerful effect in reducing temperature. This would suggest that the excessive elimination of urea, following a nitrogenous diet, may be of some assistance in reducing the temperature. It is admitted by all that food is an important element in treatment, and one of the most important members of the staff of a sanatorium is a good cook.

The third point and the one in which the greatest amount of discretion is required is the question of rest and exercise. There is no doubt that the practice of some German and English sanatoria is to encourage too much rest; we must remember that more gain in weight is not everything, and I believe that a great deal of the success of Dr. Walther's treatment is due to his insistence on this point. At Nordrach the patient must take as much exercise as possible so long as there is no rise of temperature; the temperature is taken immediately after a walk and if it is over 100·4° the amount of exercise is curtailed. I think that in this matter the rapidity of the pulse should also be considered, but there is no doubt of the value of a careful record of temperature. The temperature in the axilla is not liable to the same variation as that in the mouth, the temperature in the rectum is the most easily influenced and, therefore, the most reliable. It is in this question, the amount of rest and exercise, that strict medical supervision is so necessary; it is the rule that a patient must be seen at least once a day by the medical man Rest is necessary to restore the balance of income and expenditure, exercise is required to strengthen the muscular force of the heart and improve the general nutrition of the body. We believe that sanatorium treatment is the only form of treatment for consumption, and when the medical profession and the public realise this, sanatoria must be established in every state sufficient to meet the demands of the case.

SOME REMARKS ON GUNSHOT INJURIES OF BLOOD VESSELS AND PHYSICAL DEFECTS OF SOLDIERS AS SEEN IN SOUTH AFRICA.

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MY military experience is hardly wide enough to justify generalisations, and you must not consider anything I may say as of the nature of a report.

I was surprised at the number of soldiers with hammer toes, flat feet, varicose veins, visceral ptosis, phthisis, skeletal syphilis, mental aberration, hernia, and defective dentition, and absence of means of treating it. Hard biscuits, bully beef, and constant treking necessarily aggravate it. Periostitis of a general's jaw would not contribute to great deeds or accurate calculations on his part. Face ache in a junior at the wrong psychological moment might mean more than the surrender of his water bottle and bandolier.

It will interest you, as Australians, to learn that there were remounts from South America (bred from mares previously in foal to jack asses) whose obstinate behaviour appeared to justify the belief of our own breeders in telegony or the influence of a first sire so emphatically denied by Professor Cosser Ewart.

The old-fashioned trephines, long knives, and consulting surgeons were not as necessary as Hofmann's gouge forceps, telephone probes, and men who thoroughly understood how to immobilize fractures for transport, and to occlude the accompanying breaches of surface with a minimum of handling and the attainable maximum of cleanliness. Much of the operative treatment might with advantage have been postponed till the case arrived at Netley. Our pupil, Dr. A. J. Campbell, saw a traumatic aneurism subside on the voyage to England, in which case a very celebrated surgeon and I had previously urged immediate operation. On the same voyage, he placed a man in a warm bath and delivered him of a Mauser bullet per urethram; thus justifying the omission of a suprapubic cystotomy by the army surgeon at the front.

It was in South Africa that I realised how much time is spent by the student in memorizing the branches of arteries, which would have been more profitably employed in acquiring a visual picture of the veins, which bleed so furiously even in a recently deceased cadaver.

In civil practice, the forest of clips which hang from an axillary or cervical dissection, shows that the surgeon is unacquainted with the confluents and general behaviour of the veins involved. Doubtless, at his Fellowship Examination he was required to perform an amputation and tie the lingual, carotid, femoral, or axillary arteries. Mobilizing the internal jugular or exposing the intricacies of the axillary or profunda femoris veins did not come within the scope of his curriculum.

His surgical "Majuba" arrives when he sees some simple round ligament operation terminate with femoral thrombosis and pulmonary embolism, or his hernia operation resulting in a hæmatoma of the cavum retzii or worse. No doubt the dangers of an abnormal obturator artery or of air entering into a vein was duly impressed on him in his student days, but the anatomy of the femoral vein, much less its inconstant tributaries, was summed up in "a big vessel painted blue and lying to the inner side of the artery of the same name."

An injury of a large blood vessel by a bullet is not necessarily a perforating one, it is often a lateral contusion either by the bullet or some adjacent structure to which the bullet transmits some of its force. As the storage capacity and surface area of the veins exceeds that of the arteries of the body, more veins must have been hit by bullets than arteries during the South African campaign, although in the stationary hospitals injuries to arteries were those principally met with. We are thus forced to the conclusion that fatal primary hæmorrhage was more often due to injuries to veins than to those of the arteries; especially in the pelvis where veins preponderate must this have been the case. If a perforated femoral or a severed popliteal artery can contract so that the patient reaches the base alive several days after the injury, so also should a perforated internal iliac or gluteal. Therefore, in bullet wounds of the pelvis, which are particularly fatal, it must be the iliac vein with its maze of tributaries some of them valveless, that is to be feared rather than the iliac artery. This fact I had observed several years ago in a big kangaroo killed with a saloon-rifle.

I was on no occasion consulted as to the treatment of an uncomplicated wound of a larger vein. Such injuries did not reach the base hospitals; either fatal hæmorrhage occurred on the field, or accompanying lesions of adjacent structures masked the symptoms and modified the treatment. Paradoxical as it may seem, a wound of a large vein is less deadly when the corresponding artery has been hit by the same bullet. The conviction was forced upon me that the relative value of the factors responsible for this spontaneous arrest is not generally realised. Curling in of the middle and inner coats (which happens when a ligature is drawn too tight) and salutary thrombosis in the artery usually emphasised are, as a rule, absent. The contraction of the muscular element (controlled by nerves) with retraction of its ends in the artery if completely severed, are (apart from lowered blood pressure from loss of blood) the most powerful means of natural hæmostasis. This contractile power is a quality of the resilient vessels of youthful manhood, and has been more in evidence in bullet wounds of the popliteal than any other artery. Major Freyer found an unexpected perforation of the femoral artery in one case which he explored for another reason. We all know that pulmonary embolism from a thrombus in the non-contractile lateral sinus is prevented by a contraction and not by a thrombus of the internal jugular vein. Some of us recall the diminution in calibre and fugitive behaviour of the lingual artery or the long saphena vein in our earlier efforts at ligation.

The irritation and mechanical compression of a blood vessel by a surrounding clot is non-existent in the great serous cavities, because their storage capacity prevents pressure by the blood, which, shed into serous cavities, remains fluid for weeks instead of forming a stiff clot. In either case pyrexia appears just as it does when pus is present, or a soft sarcoma takes on a rapid growth. Twice, I was fortunately unsuccessful in inducing the wary and experienced civilian surgeon in charge, to open a blood collection as an empyema or an abscess. I have seen a retro-cæcal hæmatoma opened in the belief that it was pus connected with the appendix. The patient had been shot through both lungs a fortnight previously; only after its evacuation did a thrill become apparent near the healed exit wound in the right eleventh interspace. (Intercostal arterio-venous aneurism which healed later on spontaneously.) I am not quite clear on the difference between a big hæmatoma and a false traumatic aneurism, but I think the latter is due to secondary rather than to primary hæmorrhage. The distinction between it and a true traumatic aneurism is that the pulsation common to both is more expansile in the so-called true variety. In communication of either with a vein, a varicose aneurism is the result. In aneurismal varix there is no aneurism (sac) and therefore no expansile pulsation A bee buzzing murmur and a purring thrill (evidence of an arterio-venous communication) exists in both. Difference of opinion sometimes prevails as to the vessel injured, and as to the treatment of the resulting condition.

In one case a famous consultant advised postponement of operative treatment in order to give the circulation time to readjust itself. Next day another equally famous surgeon arrived on the scene and forthwith cut into the large traumatic aneurism which was present in Scarpa's triangle, tied everything that ran blood, including the common femoral artery, and a hole in the common femoral vein, and cured the patient.

As a rule, when circumstances permitted, the advice of the first-mentioned consultant was followed in such cases. Operation was postponed for several weeks, and rest for the injured limb secured. Then proximal and distal ligation of the artery as near the communication as possible with evacuation of the clots was adopted. There never was any question of the employment of gelatine injections, drugs, galvano-puncture, etc.

In a case of traumatic aneurism following three weeks after passage of a Mauser bullet from the pomum adami to the right supra spinatus fossa where it made its exit; it was difficult to tell whether it resulted from a wound of the common carotid near its origin, or from a branch of the thyroid axis. Some advised immediate operation, some "armed expectancy," and others again "masterly inactivity." In this latter view the patient concurred, and was sent to England in charge of a surgeon, who, later on, reported him as cured.

I once saw the thigh rapidly assuming elephantine proportions 48 hours after a bullet wound in the base of Scarpa's triangle on the right side. There was no pulsation in the foot. We took it in turns to compress the common femoral while the patient was being moved to the operating theatre. The surgeon in charge of the case (Dr. Finlay), cut down at once, and was met by a rush, not of blood, but of evil smelling gas. The profunda femoris had a very high origin and was found contused and quite empty. The crural nerve was also contused, and behind it lay the distorted core of a small-bore bullet and four separate fragments of its soft steel casing embedded in the blood-stained tissues around. The aperture of entry was larger than usual, and we thought the bullet must have had four slits in the casing which "set up" on a pocket book, or field dressing, before entering his groin, into which it carried the bacillus of malignant œdema. The patient died the same evening.

The following day I saw a Kaffir woman limp into the Civil Hospital and receive admission to the fever ward. When she died, thirty-six hours later, her left thigh was swollen exactly as in the case of the soldier. Two punctures in the skin, such as might result from contact with a barbed wire fence, existed in the skin of the groin.

Proximal ligation at a distance from the aneurism was often successful, at any rate in the case of pure aneurisms: personally, I liked getting a little nearer the lesion. I think the fate of the soldier sometimes depended on the presence of abnormal vessels, and sometimes on their absence.

In one case of arterio-venous aneurism in Scarpa's triangle the common femoral artery and vein were both tied and the patient recovered.

While in another case where the superficial femoral artery and the deep (profunda) vein were injured, ligation of the common femoral above, and of the superficial femoral below the injury, resulted in gangrene and death.

In the case of a young officer, a fluctuating swelling ushered in by pyrexia, appeared to the inner side of the femoral vein at the base of the right Scarpa's triangle four weeks after having been hit by a Mauser bullet which "set up" on a knife in his pistol pocket. Pus was suspected, the swelling was opened, clot evacuated and the bullet the shape of a cabbage palm dislodged. There was a serious rush of blood, necessitating ligation of the common femoral and stuffing of the cavity with gauze; no gangrene followed. The secondary hæmorrhage which produced the (? burst) aneurism may have been due to the knife-like edges of the broken casing, or to an aseptic slough of the internal circumflex artery. Loss of support of the wall of the cavity, by the removed clot, if not the disempactment of the ragged bullet, must have produced the hæmorrhage on the operating table.

In an immense arterio-venous aneurism, purposely left for five weeks to permit of encapsulation, etc., which existed between the bifurcation of the common femoral and the profunda vein, all three arteries were tied on the sac wall, by the aid of Sir Thos. Smith's cleft palate raspatory with an eye drilled in one end to carry a tendon (where an ordinary aneurism needle could not be passed). The clots were evacuated and the cavity stuffed with a sponge the size of a shut fist and thirty feet of inch wide gauze. None the less, the patient returned to his parents in America four months later. His pulse rate increased markedly after this triple ligation.

Major MacCormick who went with the forces from New South Wales to Africa drew my attention to tearing of the portal vein by the adhesions incident to a gastro-jejunostomy as a cause of death, and I cannot help thinking that in some cases of retarded fatal internal hæmorrhage after bullet wounds of the abdomen, tearing open of veins by scar tissue was the cause.

I saw three cases of aneurismal varix, and many more of aneurisms. An arterio-venous aneurism under the anterior flap of right axilla was cured by ligation of the third stage of the subclavian above the clavicle by a distinguished American (Dr. Max Blieden) in which I prematurely prophesied recurrence in the form of a varix.

An aneurismal varix in the same position as the foregoing, was cured by a single ligature placed above, but perilously near the communication with the axillary vein—right in the scar track of the bullet—by Civil Surgeon W. J. Woods, who was one of the most skilful operators I have seen.

It is difficult to understand the absence of gangrene where the common femoral artery and vein are both tied. Germane to this, is the occasional presence of a large vein which coursed up the outer side of the femoral artery and connected the profunda femoral vein with the external iliac vein inside the body. People who advocate tying the neck of a hernial sac "as far up as possible," should bear this in mind.

Doyen's largest size hysterectomy clamp is not only a splendid tourniquet, but also a very efficient instrument to secure vessels in a stump even before they are divided. It is a good intestinal clamp, and I have seen an ex-employee in the Pretoria Waterworks have his sigmoid flexure removed between two of them

I have already mentioned Sir Thos Smith's cleft palate respatory as an aneurism needle. It is also a good retractor and stripper and fragment finder. The best retractor for flaps I saw used was Worrall's single-tooth valsellum, as made by McLennan & Son, Sydney.

If the president will allow me I will show some cases of returned South Australian soldiers, with nerve lesions, at a future meeting.

SOME REMARKS ON PHOTOTHERAPY.

By R. D. Pinnock, M.D., Ballarat, Victoria.

On the 29th of last month nearly a column of matter appeared in a morning local paper, headed in large type :—"Light as a Healer; an Interesting Demonstration; a New Treatment for Lupus; Tried for the First Time in Australia" The article stated that the method of treatment, and its remarkable success, came under the notice of a practitioner of Moonee Ponds, whose brother, in Ballarat, brought it under the notice of a resident of this city. That this gentleman, being interested in a man suffering from lupus, generously paid the cost of the apparatus, and that on its arrival the Moonee Ponds physician suggested that a member of this branch of the British Medical Association should be asked to superintend the treatment, and that this gentleman accordingly conducted the demonstration, the account of which appeared under the somewhat sensational heading quoted above.

When I read the article referred to several thoughts immediately obtruded themselves. First, that a member of the British Medical Association should be prominently associated with any experiment of a purely medical nature reported for the first time in a daily paper instead of being brought forward in the usual manner before some medical society. Secondly, that so far as I am aware, no member of this branch had been asked to witness the demonstration. (In parenthesis I have to state that within the last week I received an invitation to see the treatment, but for obvious reasons have not felt justified in doing so until a general invitation should be extended to the members of this society). Thirdly, that the treatment should be headed, "A New Treatment for Lupus," when it must be well-known to even casual readers of current medical literature that it was reported in 1898 at the Tuberculosis Congress in Paris, and the methods and its results were fully described in the *British Medical Journal* in September, 1899.

The fourth obtrusive thought in my mind, and the most important from our Society's point of view, was that the every day newspaper reader would naturally say, what have our local and other medical men been doing all this time that such a wonderful method of treatment should have been left to be suggested by a Moonee Ponds practitioner to a lay citizen, taken up by another layman, and only one solitary member of the profession in Ballarat deemed worthy of conducting it?

Now, gentlemen, in order to combat this very natural inference in the minds of the general public I desire to state that more than eighteen months ago I first discussed, with Mr. Treloar, the desirability of introducing this treatment, that we have carefully followed up all the available literature on the subject, and decided, for reasons which will be given to you in the following report which I requested Mr. Treloar to draw up, after reading the account of the demonstration, that it would be unwise to go to any expense in the matter. Mr. Treloar, as you all know, is Honorary Bacteriologist and Röntgen Ray Operator to the Ballarat hospital, and the excellent work done by him in this capacity should make his opinion valuable.

In the *British Medical Journal*, September 30th, 1899, Dr. Valdemar Bie makes the following statement in his description of the methods and results of Finsen's phototheraphy.

"For the present, at least, only the skin, the hard palate, the front part of the septum nasi, tongue, and the mucous membrane of the cheek, can be cured by this method."

In the same journal of June 30th, 1900, in an article on the "Light Treatment at the London Hospital" appears the following :—

"The drawbacks of the method are its slowness, taking months; the impossibility of treating with it the affected mucous membrane because of the hitherto insuperable difficulties of focussing the rays to curved surfaces."

On June 30th, 1900, Malcolm Morris gave a demonstration of the electric light treatment at the Studio, Berkeley Gardens, Kensington, W., and then distinctly affirmed that there are instances where Finsen's method cannot be successfully applied, in the following words :—

"It was certain that mucous membranes affected with lupus could not be satisfactorily treated by Finsen's method, partly because the pressure could not be borne, but chiefly because accurate focalisation was impossible, seeing that the surface to be treated was characterized by folds and crevices."

It is evident from this opinion that the success of the treatment, if reliance is to be placed on Finsen's method, will depend upon the flatness of the affected parts.

However, to meet the above difficulty, Finsen's method was eventually combined with the X-Rays, as the latter, in virtue of their power of penetration, may be used to act on mucous membranes however complicated their arrangement.

Malcolm Morris related an instance of this difficulty where a lupus of the cheek implicated the interior of the nose, and the combined treatment with the Finsen light and the X-Rays had given excellent results.

Reginald Bowman (*Australasian Medical Gazette*, January, 1901), reports a case of lupus at the left angle of the mouth, involving half the upper lip and three-quarters of the lower, successfully treated by the X-Rays combined with Tuberculin injections, in which neither treatment separately, was quite effective. In an article on "The Light Treatment," by Strebel Deutsche, Med. Woch., 5th and 12th July, 1900, quoted in the *Medical Review*, October, 1900, appears the following :—"The Berlin School prefers (for the treatment of lupus), light *plus* radiant heat, and claims that the greater hyperæmia produced favours healing, and shortens the duration of treatment, which system is preferable *is undecided* ; if the Berlin method is equally efficacious, it has the great advantage that larger areas can be treated than is possible with Finsen's method. No electric light, even the arc light, is so efficacious as sunlight, since the latter contains far more chemical rays."

The results following the applications of the chemical rays in cases of lupus, rodent ulcer, etc., seem to point to the possibility that we have at our command a "*Chemical Ray Cautery*." The apparent curative effects may be due to this action. The cells below the granulations and in the other affected parts may absorb from the chemical rays the very elements that were wanting, or of which they had been previously deprived, rendering the soil, so to speak, unsuitable for the habitation of the micro-organisms and resulting in these becoming passive. If such a theory is tenable, what will become of the micro-organisms and their spores? Will they remain quiescent until a favourable opportunity presents itself and recommence their work of destruction in the same place, or will they migrate through the medium of the blood vessels and attack some weak organ? This is a matter of considerable importance to the medical profession and should receive very earnest thought and study.

Since this was written my attention has been drawn to a report of a case of "Epidermoid Cancer created by the X-Rays" in the *Boston Medical and Surgical Journal* April 4th, 1901, where the following editorial comment occurs. "The well-known value of the X-Ray in the treatment of lupus is probably directly dependent upon either the inhibitory effect upon the tubercle bacillus, or else on the altered condition of the cells of the part caused by a re-action in the tissues."

Finsen's light treatment in lupus and other micro-organic skin diseases, is evidently based on the assumption that the chemical rays will destroy micro-organisms.

That the chemical rays will arrest the growth of the tubercular and other pathogenic bacteria has been fairly well demonstrated by various well-known bacteriologists. But the great question demanding an answer is, "are these micro-organisms, as well as the free spores, actually destroyed?"

The results of my own experiments with cultures submitted to the chemical rays for considerable periods does not justify that belief, although I have not tried very thin films of the cultures. Then, again, with regard to the free spores, we have to deal, not with life, but with the basis of life. While boiling water will in time destroy the micro-organisms yet the spores are unaffected.

For the sake of argument, let us suppose that the chemical rays, or any other known rays, will bring about the destruction of these organisms, I presume that their dissolution would be marked by the liberation of their toxins, and as a consequence, that there would be some physical indication of toxin poisoning. Yet, in the cases said to be treated successfully no mention is made of any such re-action. I am inclined to the opinion that in the deeper structures, neither the tubercle bacilli, nor the spores, are really destroyed.

Taking into consideration the above deductions drawn from the literature available on this subject I do not consider that the treatment and its results, as reported to date, warrant the necessary expenditure for a complete Light Treatment plant when the X-Ray treatment with special appliances will produce as good results at a comparatively insignificant cost. And according to the admission made by the leading Light Treatment operators the X-Ray treatment has a range of effectiveness in lupus which phototherapy cannot reach. (See communication *British Medical Journal*, February 9th, 1901, from Dr. Sequeira of the London hospital).

Finsen's method is still in the experimental stage, and in the cases of reported cures, sufficient time has not elapsed to eliminate the possibility of recurrence.

AN OBSCURE CEREBRAL INJURY.

By T. A. Wilson, M.B., Ch B., Creswick, Victoria.

Brain injuries from the diversity and complexity of their symptoms, and from the uncertainty as to their course and termination, are necessarily regarded by the surgeon with the greatest respect, for as we not often find that what at first appears to be but a trivial injury, may at a later stage develop a train of symptoms which occasion the gravest concern. When we remember that, what on first inspection appears to be a slight case of that obscure pathological condition known as concussion with but a momentary and transient unconsciousness, may gradually, sooner or later, pass on to one of the many forms of the remoter evil consequences of secondary cerebral disease, we should recollect, that we are never justified in stating that a patient, with a head injury, has not been seriously injured, or in asserting, at any time, that a complete recovery has taken place.

On the other hand when we review our past experience and the literature of the recoveries that have taken place in the more serious forms of cerebral injury, we should be encouraged by the ray of hope emerging from the darkest side of a gloomy prognosis, to adopt the application of modern scientific methods of treatment, and persevere with them, in the hope of a happy and successful result.

Or as Hippocrates has truly observed, there is no injury to the head so trivial as to be despised, or so serious as to be despaired of.

The notes of the following case will, to some extent, serve to show how the development of signs and symptoms may overlap and be so mixed up in the clinical picture as to leave, as a consequence, a large leaven of doubt in the mind of the surgeon, as to what the exact pathological condition is that he is called upon to deal with :—

A. L., female, *æt* 29, was first seen on 17th December, 1900, when the following particulars were noted :—Illness began on 15th inst. with severe headache, anorexia, cough, general prostration, and pain of a tingling character in the left leg; these symptoms were thought, by the patient and her mother, to be due to a wetting she received whilst out driving on the previous day, associated with the fact of her having eaten freely of cherries on the same day; during the day, however, she was up and about attending to her household duties. On next day, 16th inst., not feeling any better decided to remain in bed, but on getting out to void urine, she stumbled and fell, striking her head against the wall, the impact taking place above right ear: she got up immediately, passed urine, and got back into bed. Following on this fall there was an increase in the headache, and on next day, 17th inst., it was noticed that she was inclined to be drowsy, and complained of a tingling sensation and some loss of power in left arm, and an increase of pain in left leg. Previous to present illness she had always been a delicate girl and very subject to "catching cold," but the only history of distinct previous illness was that of an acute suppurative otitis of the right ear five years ago, with persistent tinnitus, and a left sided pleurisy two years ago, since the occurrence of which she has had continually more or less pain in the right side of the head.

On examination a tall spare patient was found lying doubled up on the left side, very drowsy, and when roused, slow to answer questions, and seemed to resist interference of any kind. The only complaint she made was that of headache in the temporal and frontal regions, a tingling sensation in left arm, and pain in the left leg. Temperature, normal; pulse 100, very compressible; tongue slightly furred; heart sounds clear but feeble; bronchial râles over both lungs, no abdominal distention or tenderness; urine normal. On examining head no bruising of superficial tissues or injury to bone to be detected, and no increase in pain on percussing skull or over mastoid process. Ordered rest, quiet, liquid diet, calomel purge, and expectorant mixture.

On next day, 18th inst., patient still very drowsy; headache easier, but slower in answering questions; temperature normal; pulse 100, compressible; right ear carefully examined, but no sign of any acute or chronic trouble to be detected, canal and membrana tympani appearing quite normal; no redness, œdema or tenderness over mastoid process; complete loss of both sensation and motion in left arm, but still moves left leg with good force; pupils equal and react to light; no facial paralysis, and protrusion of tongue central; still lying coiled up on left side. As bowels had not been moved, calomel purge was repeated, to be followed by Hst. Dom. Alb. in four hours; head shaved, and ice-cap applied.

Following day, 19th inst, still marked drowsiness, very slow to answer questions; temperature normal; pulse 80, slightly fuller; urine passed involuntarily, and bowels slightly moved in bed; vomiting greenish fluid; pupils equal, with re-action to light; no patellar reflex left leg; bowels well moved after an enema. Applied sinapism to neck, and gave ol. crotonis ♏i.

Next day, 20th inst., more comatose, pupils unequal, right widely dilated, and no reaction to light; left very sluggish re-action; stertorous breathing, and difficulty in swallowing. Seen later in absolute coma, with Cheyne-Stokes' respirations, and died at 9 p.m.

In this case it is at once apparent that there are several points which arrest attention, and are worthy of consideration. In the first place I would point out the suddeness of the fatal termination in an illness which, beginning on the 15th inst., was followed by an injury to the head without fracture or loss of consciousness on the 16th inst., and resulting in death on the 20th inst., from the effects of an acute cerebral lesion. Secondly, there is the history of more or less continual pain in the right side of the head for two years, with sudden accession of the headache and the development of a tingling pain in the left leg on the day before the receipt of the head injury. Could these symptoms have had any causal relationship with the otorrhœa of five years ago, or the more recent pleurisy of two years ago? And if so, was it tubercular in character?

Against this it is to be noted that there was no fever, rigors, sweating, twitching, or other symptoms of cortical irritation, excepting the headache complained of, at any time before the onset of the present illness; and further, the absence of cortical symptoms, together with the non-appearance of other classical symptoms, such as cerebral vomiting and optic neuritis, might lead one reasonably to expect that it was safe to exclude, not only tubercle, but also all other forms of brain invasion. Thirdly, in an injury to the head, occurring as in this case, without an injury to the skull I had usually hitherto expected to find evidence of an injury having occurred to the opposite side of the brain, that is a contusion by contre-coup, but in this case it would appear that an injury sufficiently severe to have caused contusion and laceration of the brain must have occurred immediately under the part struck, and then without having produced the symptoms of concussion. That such an injury to the brain tissue did occur, and that it was probably in the near vicinity of the frontal lobes, is shewn by the peculiar condition of mental irritation present; *e.g.*, the resistance shown by the patient to any interference, and from the position in which, with flexed limbs, she lay coiled up in bed.

In the fourth place the presence of headache of an increasing intensity, associated with drowsiness passing on to insensibility, and finally into absolute coma, are certainly diagnostic of compression, and these symptoms following so quickly on the receipt of the injury would lead one to suppose in the absence of depressed bone, or the presence of a foreign body, that the cause was hæmorrhage from a ruptured meningeal vessel.

Against the theory that the symptoms present were due to hæmorrhage between the skull and *dura mater*, I would point out that the force required to produce a laceration of the middle meningeal artery should certainly have caused, immediately on receipt of the injury, more marked symptoms of concussion than were present, for as I have previously noted the fall against the wall was not, at once, followed by any perceptible loss of consciousness.

Again, compression from an inflammatory effusion into the cranial cavity, whether from a meningitis, arachnitis, or even an encephalitis, in the absence of an apparent wound for the admission of micro-organisms, could not possibly have run so acute and rapid a course, for in this case the patient began to be comatose within thirty-six hours of the receipt of the injury, so that if the symptoms are to be explained as resulting from some vascular disturbance, it must, I think, be other than that involved in an acute inflammation of the meninges or brain substance.

In the fifth place the unilateral throbbing headache, associated with sub-normal temperature, sluggish cerebration, and the history of a previous suppurative otitis media would point to the case being probably one of cerebral abscess, in which the pus was localized and surrounded by a definite membrane, and the sudden increase in the severity of the symptoms that occurred after the fall, might be explained by the abscess having burst into the ventricle, or towards the surface, and thereby setting up a general purulent meningitis.

The fact, however, that the discharge had ceased for five years, together with the healthy condition of the ear found on examination, would certainly argue against the presence of an abscess originating from the previous ear trouble.

And lastly, could the condition have been one of spreading œdema of the brain, taking its starting point from some contusion and laceration resulting from the fall against the wall? That the case was possibly one of this nature is shown by the progressive loss of consciousness and increasing paralysis coming on within thirty-six hours of the injury, and the fact that the pulse, which was at first weak and rapid, gradually became fuller and slower as the intra-cranial pressure increased.

Such a conclusion, however, would not explain the cause of the headache which had been continually present, more or less severely for the past two years, neither would it explain the cause of the pain in the left leg on the 15th inst., nor the reason why she fell on getting out of bed on the 16th inst. It is possible that the fall was due to some loss of power in the left leg resulting from the presence of a cerebral tumour which must have increased in size very slowly, and which, probably acting as a compressing agent, favoured the occurrence of an active spreading œdema as the result of an injury to the brain tissue.

The case, from a diagnostic standpoint, was an exceptionally interesting one, and in the absence of a *post-mortem* examination, which it was impossible to obtain, I have not been able to satisfactorily explain the condition present, and further, I cannot refrain from censuring myself to some extent for not having resorted to the use of the trephine as an aid to diagnosis, and possibly to the successful treatment of a most interesting case.

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A CASE OF APPENDICITIS COMPLICATED BY EMPYEMA—OPERATIONS—RECOVERY.

By G. Hamilton Rowlands, L.R.C.P. *et* S.E., Etc., Narramine, N.S.W.

The following case appears to me to be interesting on account of the direction taken by the abscess; the deceptive amelioration of symptoms on the third day; the rapid supervention of empyema, and as an illustration of the exigencies of country practice.

P. H., aged 27, a vigorous looking young bushman drove in five miles to see me on Saturday, May 11th. The previous night he had been seized with sudden pain across the lower abdomen and around the umbilicus, eventually settling in the right iliac region.

On the 7th and 8th of May he had been in Dubbo, and the change from bush fare had led him to indulge in particularly hearty meals. His bowels were relaxed. Examination shewed great tenderness and tympanites in the right iliac region, with intense tenderness over McBurney's point; no dulness on percussion; temperature 101°, pulse 108; an inclination to vomit. He was ordered to bed, and small doses of tr. chlorof. *et* morph. were administered to check retching, but insufficient to materially mask symptoms.

May 12th.—Pain worse; tenderness extending into right ilio-costal region where there was some dulness; tympanites over iliac region still marked; no lump or dulness in this situation; temperature 102°, pulse 120; bowels constipated; ordered soap and water enemata. I now thought an operation advisable; but no medical assistance could be obtained on that day, Sunday.

13th.—Marked general improvement; temperature 100·5°, pulse 104; pain less; looked easier and brighter; but increased dulness in right flank.

14th.—Retrogressing; temperature 102.8°, pulse 120; breathing short; dry, hacking cough; cheeks flushed over malar bones; dulness over lower lobe of right lung; breath sounds distant; not tubular; diminished V.F. These signs suggested a thin layer of fluid in the right pleural cavity. I inserted an exploring needle in three places over the dull area, but with negative result. The dulness in the ilio-costal region was increased in intensity and extended upwards.

15th.—The physical signs of fluid in the pleura were more marked, so regarding the exploring syringe as unreliable, I used Potain's aspirator, inserting the large trocar in the

8th interspace in the posterior axillary line, and drew off about four ounces of thick pus. The conclusions arrived at were that the appendicular abscess had burst behind the peritoneum; that the amelioration of symptoms on the 13th was due to this release from tension of imprisoned pus. The pus aspirated from the pleural cavity had a faintly fæcal odour. The patient appeared now to be rapidly sinking. His features were sunken—facies hippocratica—breathing rapid and shallow; pulse 130; small, weak, compressible. Fortunately, that night I was able to get the valuable assistance of Dr. Burkitt, of Dubbo.

Operation.—At 12 p.m. the patient was brought under the influence of chloroform, the subsequent administration being, perforce, entrusted to a well instructed layman. By the light of a kerosene lamp and a candle I made an oblique incision, four inches long, in the ilio-costal region, similar to Bryant's incision for colotomy. The muscles were successively divided and the dense fascia lumborum divided. Through this opening a tense fluid mass could be felt, and a slight snick with the knife was followed by a gush of horribly fæcal smelling pus. This opening was widely enlarged and a very large drainage tube inserted, and the superfluous part of the incision sutured. An incision was now made into the right pleura, but no pus escaped, and the finger revealed soft pleural adhesions all round, so the incision was at once closed with sutures. The patient's condition on coming out of the operation was wonderfully improved; but a pint enema of normal saline solution was given.

16th.—General improvement. Temperature 98·8°; pulse 78; breathing easier, but still quickened; very free discharge, horribly fæcal, from lumbar incision; ordered salol 10 grs. twice a day, and ran glycerine emulsion of iodoform, 10 per cent., into the abscess cavity.

17th.—Condition much worse. Temperature, 103°; pulse 130; face flushed over malar bones; discovered wooden dulness over lower lobe of right lung, closer to the spine than where the previous incision was made, and I cut down through the thick muscles of the back over the dulness and released from the pleural cavity about a pint of very foul pus, and inserted a large drainage tube. There was free hæmorrhage from deep muscular branches, and a normal saline enema was given after its arrest. From this date the patient steadily improved. The sinuses gradually closed. From the lower one a string of black and yellow slough escaped, which I believe was the necrosed appendix.

On June 15th he was able to get up, and on July 1st he was convalescent, the only abnormality being slight dulness over right lung posteriorly, probably from thickened pleura.

It may not be superfluous to mention that adverse as the circumstances were the fullest degree of asepsis was aimed at. Glycerine emulsion of iodoform had a marked influence in sweetening the pus, however weak its antiseptic virtues. and outside dressings of cyanide gauze and salicylic wool were used. The skin and hands were disinfected with turpentine spirit, 1 in 500 biniodide sol.; sutures boiled in plain water, and instruments in soda and boiling water. In fact, I see no reason why, in country practice, though hospital standard cannot be expected, strict asepsis should not be studied and generally attained.

The empyema probably resulted from extension of the abscess upwards beneath the ligamentum arcuatum internum, aided by the recumbent posture, a portion of the empyema, shut off by pleural adhesions, giving rise to the exacerbation noted on May 17th.

A CASE OF APPENDICITIS AND A LESSON.

By A. G. E. Naylor, L.R.C.P. & L.R.C.S. Edin., Minyip, Victoria.

On Tuesday, 2nd inst., I was reading Dr. Mills' interesting and instructive article, "Appendicitis from a Physician's Point of View," in the *Gazette* (June), when I received a message from a farm six miles outside this township, requiring my services for a man suffering from "vomiting and a pain in his belly," whose bowels had not opened since Sunday. At once I wondered if here was a case of appendicitis.

I found my patient, a small, badly-nourished man of forty, in bed, *but not looking distressed.* On Saturday he had "fallen on his stomach" when helping to pull a bogged horse out of a dam. On Sunday he felt pain, and vomited after his dinner, and had been vomiting more or less ever since. He had taken "five Indian-root pills and salts," but the bowels had not opened. Temperature in axilla, 99 5° F. Pulse, 78 per minute. Tongue large and moist, like an anæmic's tongue. Urine somewhat scanty, and full of sediment. The abdomen was distended and tympanitic below the umbilicus; no distention above this point There was pain immediately below the umbilicus, but none at McBurney's point. Pressure over the epigastrium caused pain, also over the left lumbar region. The vomit was sour and "coffee-ground," but at no time fæculent; there was about a pint of it. I tried an enema, but it was not retained, and nothing came away but a little bloody mucus. Suspecting, but not diagnosing, appendicitis, I ordered 1 gr. doses of calomel with gr. 5 of sod. bicarb. every three hours—tentatively.

3rd July.—I visited my patient this day, fully prepared if symptoms warranted it to send for the nearest surgeon (36 miles away) who was capable of operating satisfactorily. But my patient seemed better. He made his will, and was cheerful about it. Urine more and clear; temperature, 99° F.; pulse, 75 per minute; tongue still moist and large. Vomiting continued, and few if any of the powders had been retained. Bearing in mind the fall on Saturday, and the attempt at forcing the bowels with brisk purgatives and the passage of bloody mucus, I placed the case as a mild one of acute peritonitis, and abandoned the thought of appendiceal abscess, considering pulse, temperature and tongue. I ordered linseed meal poultices sprinkled over with opium liniment for application to the abdomen, and for the sour vomiting and pain gave ½ gr. doses of pulv. opii. and ½ ♏ of creosote every four hours.

4th July.—Patient was not changed much, except that the vomiting was replaced by hiccough. Pulse, temperature and tongue as before. He lay with his knees down, and, on asking him if he would like a pillow under his knees to keep them bent, he assured me that he was quite comfortable, and to prove it bumped up and down in bed, much to my disgust and alarm. I stopped the creosote, and continued the ½ gr. of opium, giving a hypodermic of morphia for the hiccough. He had kept down the soda-water and milk that he had been having in small quantities.

5th July.—As soon as I saw my patient this day I felt that something had happened since my last visit. He was decidedly worse, and I felt sure that if he did not improve in twenty-four hours he would die, although I had had cases of acute peritonitis recover from an apparently worse condition than his. The abdomen was more distended. Temperature, 99 8° F.; pulse, 100. The tongue, which was still moist and large, was the most hopeful sign. But there was a generally "gone" or "done-up" appearance about him that I did not like. I tried another enema, as the bowels were still confined, this time with the rectal tube. A lump of hardened fæces came away. I examined per rectum, but felt nothing abnormal and there was no pain on examining. I stimulated as far as I could.

6th July.—Patient at 11 a.m. was pulseless. He died at 8 p.m., retaining consciousness to the end and having had comparatively little pain throughout his illness.

I knew J. R. had died of acute peritonitis, but as to how this was produced I wished to be certain. I had great difficulty in overcoming the prejudices of the relatives against having the body "cut up." But on appealing to their common sense and pointing out that I wished to obtain a lesson from the dead for the benefit of the living, I obtained the desired consent to open the abdomen. My nearest medical neighbour being 14 miles away, I asked our local veterinary surgeon, Mr. James Barnes, M.R.C.V.S., to help me. (He has helped to make and made a *post-mortem* examination of many a body of both man and beast.)

On exposing the peritoneum there were signs of general inflammation present. The ileum was very much distended with flatus, and near the cæcum was quite œdematous. The cæcum was full of hardened fæces. On looking for the appendix a quantity of purulent fluid came into view, somewhat preparing us for what we were about to see. The *appendix* was about four inches long; it was *perforated*, *gangrenous*, with pus adhering to its lining. There was no doubt about the cause of the acute peritonitis now.

Here was a case, then, of appendiceal abscess, showing no marked effect on the temperature, pulse or tongue for five days. I judge that the patient's chances were over on the 5th July, the day I felt sure that "something had happened"—the abscess had opened into the peritoneum. Hence, no doubt, the absence of a bulging painful mass when I first examined the rectum on that day. Considering the state of the temperature, pulse, and tongue, would any surgeon have operated before Friday? If not, he should have done so, as this case proves Later than this would have been too late.

The lesson that I have learned from this case and that I would like all those who read these notes to mark, is that whenever there is some abdominal pain with some abdominal distention, no matter where located, with persistent vomiting and obstinate constipation, no matter how the temperature, pulse and tongue may be; whenever these are otherwise unaccountable, feel sure of appendicitis, and if, as Dr. Mills insists, an examination per rectum reveals a bulging mass on the right side, producing pain on pressure, feel sure there is an appendiceal abscess. Have the patient operated on without delay. Don't temporise.

TWO CASES OF VESICULAR DEGENERATION OF THE CHORION.

BY C. S. WILLIS, M.B., CH.M., SURGEON TO HOSPITAL. CLERMONT, QUEENSLAND.

THE first case was one I was asked to see in consultation.

This patient was 23 years of age, and gave the following history:—She thought she was about ten weeks pregnant, but was not certain. A week ago, after returning from a holiday, she began to have slight "womb pains," and the next day passed some blood and water. Soon afterwards the pains became very intense, and she began to vomit. When I saw her she was vomiting very frequently. On being questioned she said she thought the uterus had increased somewhat rapidly during the last two weeks. She had one child; no miscarriages. On examining her I found the uterus about the size of a five months pregnancy, the fundus was slightly irregular, no auscultatory signs or signs of pregnancy could be obtained, no ballottement, and the uterus presented a very marked, doughy, boggy feeling. The breasts had the character of a three rather than a five months pregnancy.

Diagnosing hydatid mole, I advised emptying the uterus at once, but this was not agreed to. A placebo was given, but the pain and vomiting increasing, it was agreed, two days afterwards, to empty the uterus. This I did under chloroform, after first partly dilating the cervix with tents. The curette at once brought forth the characteristic, grape-like bodies (none had been discharged before), proving the correctness of the diagnosis. I had to complete the removal with my fingers. The uterus was washed out with Lysol, and the patient made an uninterrupted recovery.

The next case occurred three months afterwards, and presented very much the same symptoms, especially the irregular fundus, the doughy, boggy feeling, the severe pain and vomiting; but here there was a more decided history of rapid growth of the uterus towards the last. In this case there had been no previous pregnancies, but the woman had been taking drugs to try and bring on abortion.

My apology for writing the above cases is that all the authors I have been able to read on this subject make the diagnosis appear difficult, whereas, in my two cases, the symptoms were so characteristic. The watery and sanguineous discharge, the severe pain and vomiting, the sudden increase in size of the uterus, and more especially the peculiar doughy, boggy feeling, described by Leishman, presented so clear a picture as to leave no doubt as to the diagnosis.

MEDIASTINAL SARCOMA.

BY ED. CHAMPION, M.B., CH.B., BALLARAT.

A. M., female, *æt* 16, was admitted to the Ballarat Hospital on the 29th March, 1901, as a case of enteric fever. She had been seen by a practitioner outside, who advised her removal to hospital.

On admission she complained of anorexia, slight headache, and feeling of soreness in the stomach. Had been ill about a week. Temperature 101·2°, pulse 140, volume small but regular, respiration 28.

There was no abdominal distention, spots or tenderness. Splenic dulness was apparently increased; soft systolic bruit, best heard in the pulmonary and aortic areas; apex beat not visible or palpable; slight cough without expectoration, and no thoracic pain. There was good vesicular murmur all over chest anteriorly. Put on No. 0 diet, and Burney Yeo's quinine *et* chlorine mixture. Patient was of hepatic temperament and had a heavy, rather scowling face.

For the first few days patient seemed to improve, but on the 9th day the temperature, which had been keeping at 99° and under, rose to 100·2°, was normal again that evening, 100° next day, and sub-normal on the evening of the tenth day, and patient complained of sore throat, but nothing noticed except congestion of fauces. The patient was still looked upon as an enteric which had aborted. On the 10th April, or thirteen days after admission, the sister in charge of the ward noticed that patient looked rather bluish about the face and hands and moved patient to a bed in warmer portion of ward. On 11th April it was noticed that the face and neck seemed swollen, the lips and ears were perfectly blue, and the rest of the face was of a livid colour. The hands were also livid, and beneath the finger nails, almost black. The heart sounds were as clearly audible and of the same character as on admission, respirations were regular, but quickened, and the breath sounds were normal. No dulness could be detected over the front of the chest on percussion. (Digitalis ♏v., nux vom ♏v., ordered).

On April 13th (16 days) the cyanosis had become more marked and was extending over the upper part of the thorax—the superficial veins were becoming marked and there was a considerable amount of œdema of head, face, neck, and upper part of thorax—pitting on pressure being very noticeable. The œdema is more marked on the right side than the left, but this is due I think to the position of patient, who feels more comfortable when lying on her right side. There is no sign of any œdema of the arms. (Hurts her neck to lie on left).

The œdema and cyanotic condition terminate in a well-marked edge which encircles the chest just above the lower margin of the ribs, and has been observed extending downwards for the last two days. There is still some soreness of throat, and the pharynx is congested and swollen, and there is some difficulty in swallowing. The respirations are 26, the breathing is somewhat laboured, inspiration being rather deeper than heretofore, but patient does not complain of any difficulty in breathing. When asleep there is a gurgling noise on inspiration; urine contains no albumen; has a short irritable cough, and expectoration of a little frothy mucus. Pulse, 120, regular, easily compressed. A consultation was held, and it was decided to apply leeches to the upper part of the chest and give inhalations of oxygen. On the 14th the cyanosis and œdema were slightly improved, there seemed to be some thickening along the course of the right external jugular vein, and a small nodule just above the right clavicle, feeling like an enlarged gland; the tongue was furred, but clean at tip and edges; no vomiting, bowels open after enema; slept well last night but had a very free perspiration; still some oozing from leech bites.

April 15th. Complains of pain in left side of front of chest extending outwards towards shoulder; cyanosis not so marked, had two profuse sweats in night. 8 p.m., swelling of right side increased; pain in left shoulder; had a severe fit of coughing in the afternoon; still has slight cough and expectoration; swallowing better.

April 18th. Pain in left side of chest, and in back, and at times in epigastric region; some dulness to right of sternum between second and fourth ribs; also over sternum, and slightly to left; heart sounds clear, but bruit still noticeable; two profuse sweats during night; breath sounds perfectly clear; given pot. acet., grs. xv.; potas. bicarb., grs. x.; tin. scill. ♏x. t.d.s.

April 20th.—Œdema of chest greatly diminished; superficial veins over abdomen standing out prominently; face and neck still much swollen but less cyanosed; small quantity of dark blood expectorated in morning; now prefers to lie on the left side, if turned on to right side becomes restless and livid.

April 22nd.—Pain in left side getting worse; area of dulness greatly increased extending down over cardiac area; heart sounds rather less distinct; attempt to examine bases of lungs causes great distress but there appears to be some dulness over left base and breath sounds are indistinct; respirations 24 but deep, temperature 98·8°.

May 3rd.—Dulness at left base has been steadily increasing and some dulness observed at right base. Decided to aspirate; 32 ozs. straw coloured fluid abstracted. Patient collapsed after aspiration; pulse became gradually weaker and respirations shallower; no increase in cyanosis. Patient died 15 minutes after aspiration.

Post-mortem.—Clear straw coloured fluid in both pleural cavities and also in pericardial sac. There was a growth evidently sarcomatous occupying the whole of the anterior mediastinum and surrounding the root of the left lung, it was attached to the anterior and upper part of the right lung; the pericardium was greatly infiltrated; all the large vessels at the base of the heart were surrounded by the growth; the upper surface of the diaphragm was affected and the inferior vena cava small nodules were scattered through both lungs. Stomach dilated, pushed down so that its lower margin reached a point midway between the umbilicus and pubes; liver, spleen and kidneys normal. No microscopical examination of growth yet.

In considering this case the first point that I must mention is the diagnosis. Patient was admitted as enteric, and treated as such. The first symptom that strikes one as prominent is the throat congestion on the 9th day of admission, or on the 16th day of the illness, this is followed by venous obstruction on the 20th day of illness, and that was very sudden. The absence of any marked or decided physical signs until the 28th day, or one month from onset of illness; absence of head symptoms, very little interference with respiration or heart. and the occurence of profuse swellings during the night. The growth is probably a primary lympho-sarcoma, and this is most usually met with between the ages of 20 and 30.

Death occurred six weeks after illness began.

Trained Male Nurse seeks engagement in mental or ordinary medical cases. Has had considerable experience in mental nursing, and is accustomed to travelling with patients to Europe and in the Australasian states. Unexceptional testimonials. References kindly permitted to Drs. F. N. Manning, Jarvie Hood, W. E. Warren, T. S. Dixson.

Address: R. T. O'Neill,
68 Crown Street,
Nr. William St.
(Late 17 Leicester St., Sydney.)
Telephone No. 166 William Street.

SOME COUGHS PRODUCED OUTSIDE THE CHEST.

BY W. N. ROBERTSON, M.B., M.CH., BRISBANE.

READ BEFORE THE QUEENSLAND BRANCH OF THE BRITISH MEDICAL ASSOCIATION, 5TH JULY, 1901.

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IN introducing the subject of cough as it is produced by causes outside the chest, I do not propose to enter into a scientific disquisition on its physiology, but would rather recite a few cases that have come under my observation, which might help to throw light on other obscure cases, and indicate some of the directions in which we might look with advantage, when we find the chest clear, and a cough persisting in spite of the usual remedies. The vagus seems to be the chief indicator of irritations which produce cough, and if we bear in mind its ramifications, we will have before us the main points for observation. In addition, the bowels, ovaries, uterus and, even the skin may be the point of irritation. I have endeavoured to select cases in which the symptoms were most marked and the relief complete when the real source was found, and I hope to show a case, where, as yet, the diagnosis is obscure.

CASE I.

L.C., *æt.* 11, and who looked about seven, came in with a paroxysmal laryngeal cough which had persisted from early childhood. He was badly nourished and emaciated, and his breath was offensive and tongue coated. The cough was clearly due to some reflex irritation outside the chest. He had been treated by several medical men, especially for worms, without result At first I could find no cause, but later, on examining the ear, a piece of bone the size of a small marble, was found imbedded in a mass of cholesteatomatous looking material. A cavity, into which the point of the finger could be introduced, had been formed in the floor of the canal and lined with epithelium. Whether the bone was an old sequestrum or had been introduced from without I could not say, but probably it was the latter, and the cavity formed by absorption. His cough all disappeared.

CASE II.

Some years ago, a girl of 20 came under my care with the most violent brassy cough that ever I have heard. She had been treated for some months for phthisis, but I could find no evidence of disease in the lungs, and could discover nothing in nose or throat to account for it. I was convinced that the cough was purely reflex, but was quite unable to conclude whence it arose. Presently she began to vomit, and had difficulty in retaining any food. Under gastric sedatives, both cough and vomiting were a little relieved, but one day the problem was solved by the girl vomiting up what she described as a handful of worms tied in a knot. That ended the cough. I regret that I did not see the worms, as the friends destroyed them, but from the description given, I believe they must have been round worms.

CASE III.

When attending the out-patients with Dr. Greville McDonald at King's College two years ago, I saw a most interesting case of hysterical cough in a miserable, anæmic looking sempstress. Nine months before she had come with the same cough, and Dr. McDonald was able to cure it immediately by the insufflation into the larynx of an $\frac{1}{8}$ grain of morphia in starch. On this occasion, a repetition of the application was equally successful. The morphia gave the parts a rest and I think suggestion did the rest. Morphia internally had no effect.

CASE IV.

3rd November, 1900.—C.P.—Sent by medical man with a diagnosis of laryngitis. Suffers also from headaches. Troubled for a long time with dryness, smarting and tickling in throat, and cough. Attacks generally last a week, last attack two months. Better one day, worse the next. Worse on talking and in the afternoon.

This case belongs to a very common type, in which the cough is due to nasal obstruction and granular pharyngitis. In addition, he had middle turbinate pressure headaches. After freeing the nose and cauterising the granulations, the symptoms all disappeared. He also lost his headaches when the middle turbinate pressure was relieved.

CASE V.

6th November, 1900.—W.E.—Complains of a bad throat, constantly blowing the nose, and cough. Had influenza two years ago and has cough ever since.

On examination, nasal obstruction, an elongated uvula, and large lingual tonsil were found. On freeing the nose and removing the uvula all the symptoms disappeared. The lingual tonsil was left untreated, as it seemed to produce no symptoms. In this connection, I cannot say I remember a case in which an enlarged lingual tonsil produced cough.

Case VI.

M.J., *æt* 38, who has had a cough for years, the result of a long standing empyema thoracis, was attacked with violent and incessant coughing during a long railway journey. This, he vigorously asserted, was due to the presence of a hair behind the pillar of the fauces. The cough persisted for three days, when he was seen. On examination of the throat nothing was found, but on going carefully over the nose with a dressed probe, the moment the left middle turbinate was touched on its inferior border, a violent fit of coughing was induced. He at once referred the sensation to the position of "the hair." The cough rapidly subsided under cocaine, and after an application of the cautery there was no return.

This is a most interesting case, illustrating the transference or perversion of sensation found in some cases. This recalls a case, the notes of which I cannot find, where the cough was due to granulations, or Mackenzie's cough spots. The lady insisted that the irritation was on the left side of the pharynx, low down, but no cough could be produced by probing that side, but it was immediately induced by probing a spot on the right about the same level.

Case VII.

A similar case was that of I.K., who used to wake up three or four times a night with a paroxysm of coughing like whooping cough, and he could get no relief till he got up a piece of phlegm which he located well towards the lower end of his sternum. He scouted the idea that his nose was to blame, but on touching the lower border of the middle turbinate he promptly responded with a violent attack. This was repeated on two occasions for the sake of experiment, before the area was cauterised. I should say that when touched he at once referred the sensation to the position of his plug of phlegm. The cautery speedily removed both cough and phlegm. I may say that it was only with difficulty he was persuaded that the probe did not pass down his trachea and touch the spot.

Case VIII.

J.J., in July, 1898, came under the care of my colleague, Dr. Francis, complaining of a violent cough and tickling in the throat, which had lasted eight months. He had lost twelve pounds in weight in twelve months. The cough was much worse in the morning, and he sometimes expectorated large quantities of phlegm, but no blood. The morning cough often produced vomiting. He often found difficulty in swallowing for a few moments, as if a valve closed "his swallow." On examination the nose, pharynx, larynx, and chest were found all right, but below the epiglottis there was an oval pediculated swelling attached along its free border, which folded down behind the tongue. He could raise it into the throat. The tumour was removed with the galvano-cautery snare with excellent result.

On 30th November, 1900, he again appeared, stating that his cough had returned. There was no return of the tumour, but he looked very alcoholic. The application of the cautery to the turbinates and some spots again relieved him entirely.

Case IX.

J.C., *æt.* 38, has had a cough for ten years. He has been treated by many medical men, including myself five years ago, without relief. The cough is of a violent paroxysmal character, usually more severe in the morning, and ending in dry retching. sometimes he loses a meal. Latterly, after a severe attack, he has expectorated some blood. He is very nervous and alarmed. He gets choking attacks in the night, which are relieved by Himrod.

On examination there were found two large fleshy bands on either side of the pharynx, on touching which, the characteristic cough was produced. There was also some nasal obstruction. Galvano-cautery was applied to both bands, and cough at once ceased. Later the nasal obstruction was relieved, and further cautery applied to the bands, which had not been completely removed at first sitting. I have heard from him since, and he has had no return of cough.

Case X.

25th May, 1901.—Miss N., *æt.* 16, has suffered from a distressing barking, hollow, brassy cough for eight months. She cannot account for the cough in any way, she did not catch cold, and is in perfect health in every way. She began menstruating three years ago, and has no trouble in that way. The cough is always worse in the evening, but she does not cough during sleep. She had considerable nasal obstruction, with inferior turbinate pressure well back, and very granular pharynx. The larynx is healthy, except that there is some congestion of the arytenoids and false cords, and some injection of about an eighth of an inch of the posterior ends of the true cords. The obstruction in the nose and the spots have been treated, but so far with no result. She has been given pills containing pil. assafœtidæ co. gr. iii., zinci. phosph. gr. $\frac{1}{36}$, and codein gr. $\frac{1}{4}$, also pills containing the valerianates of zinc, iron, and quinine, with cannabis Ind. and assafœtida, but the cough is unaltered. My colleague once elicited the cough by touching a spot on the posterior nasopharyngeal wall just above the palate, but cauterisation of that spot has had no result. It is interesting to note that an ordinary cough can be induced by touching either the nose or pharynx, but it is entirely different from *the cough*. Patient may possibly be shown.

I think these cases are of very great interest, as illustrating the necessity for careful enquiry into primary causes. In hardly any of the cases did the irritation spring from the point to which it was referred, as with M.J., whose "hair in his throat" was his middle turbinate, or J.K., whose plug of phlegm had the same origin. Even the gastric case referred her trouble to her larynx.

It is difficult to say whether the reflex is through the vagus, on to the coughing centre in the medulla, or whether a vaso-motor change is not induced. The whole question of reflex neuroses is a vexed one, and I trust members will relate any cases that have come under their notice, as it is a subject on which we cannot have too much light. I regret that I have been unable to devote more time to this paper than sufficed to look up the cases, but I trust the almost startling nature of some of these may induce us to look more closely into the subject. I am sure they present problems that would repay careful study. I fear I have but poorly represented the appalling nature of some of the coughs, and the amazing promptitude with which they respond to appropriate treatment. In conclusion, I must apologise for the fragmentary nature of the paper, which really only touches the fringe of the subject.

The following discussion took place on this paper :—

The **PRESIDENT** accorded the thanks of the Branch to Dr. Robertson for his valuable and practical paper.

Dr. **CONNOLLY** narrated a case of a girl of 18, with no tubercular history, who had a loud cough accompanied by hæmoptysis, and in whom he thought he detected signs of apical mischief, regarding the case as one of early phthisis, but who, after a visit to the country, became perfectly well in every way.

Dr. **WIELD** reported a case of a strong farmer with a terrible cough, which disappeared immediately upon the removal by syringing of a large quantity of hay seeds from the ears.

Dr. **HAWKES** stated that he had seen one case in which removal of an enlarged lingual tonsil had cured a cough which all other methods of treatment had failed to improve. Also the case of a man with spitting and coughing, diagnosed as of tubercular origin, who suffered from ethmoid disease, with a free discharge of pus trickling down the pharynx, whose cough was cured by treatment of the ethmoid disease.

Dr. **LOCKHART GIBSON** remarked on the frequency of reflex cough, and agreed with Dr. Robertson that any point where the vagus was distributed, might, if irritated, give rise to cough; that the presence of cerumen, or even the introduction of an ear-speculum, sometimes sets up severe cough. He had seen cases where small nodular hypertrophies of the lingual tonsil caused paroxysmal coughing; and remarked that if the epiglottis were erect or lying backwards no cough resulted, but if it were enlarged or lay forwards against the enlarged lingual tonsil cough was likely, and was cured by the removal of part of the lingual tonsil. Also that quite a small swelling at the posterior margin of the nasal septum, if cauterized, resulted in relief of cough and of other symptoms, such as "something in the throat," which the patient is "always wishing to get rid of, and cannot."

Dr. **HALFORD** remarked upon the frequency with which practitioners diagnosed tubercular lung mischief in cases of cough due to reflex irritation of the upper respiratory tracts, and also hæmoptysis from tubercular mischief as due to lesions in the upper respiratory tract.

Dr. **ROBERTSON**, in reply, endorsed the remarks of Drs. Connolly and Halford, and agreed with Dr. Lockhart Gibson that cough resulted from the epiglottis lying upon the lingual tonsil, though he had not seen a case of cough due solely to enlarged lingual tonsil.

PROCEEDINGS OF BRANCHES.

QUEENSLAND BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

A **GENERAL** meeting of the Branch was held on August 2nd, the following members being present: Dr. Taylor (President), Drs. Thomson, Connolly, Sutton, Wilton Love, Hawkes, Macnamara, Lightoller, Culpin, Lockhart Gibson, Marks, Cameron, Orr, Hirschfeld, Halford, Dixon, Nall, Comyn, Macdonald, Kerr Scott, and Brockway (Hon. Sec.)

The **PRESIDENT** exhibited a woman aged 43 with a tumour of left breast, without enlargement of axillary or cervical glands, but with deposits in the liver.

Dr. **CONNOLLY** reported that the child shown by him at the last meeting had improved rapidly under antisyphilitic treatment, and that he had elicited from the mother that, as a result of a former marriage, she had suffered from symptoms of syphilis no less than seventeen years ago, had been under treatment at the time, and had since shown no signs whatever of syphilis, bearing two very healthy children by her second husband, before the birth of the present tainted one, who showed signs of syphilis only when nine months old.

The **SECRETARY** read a circular letter which had been received by Dr. Sheaf from an optician named Flegeltaub. It was resolved that the circular be sent to the Editor of the *Gazette*, with the request that it be printed with comments as a Leader. (See p. 344.)

The question of rooms was referred back to the Council for further report.

Drs. Macdonald (Rockhampton) and Eleanor Greenham (Brisbane) were declared unanimously elected members of the Branch.

Dr. **WILTON LOVE** related details of a case of "Ossification of Muscle," exhibited the structure removed, and microscopic preparations made therefrom.

A discussion took place upon the principle of allowing medical superintendents of Government hospitals, or of any public hospital, the privilege of private practice, in which the President, Drs. Lightoller, Hawkes, Comyn, Halford, Wilton Love, Connolly, Lockhart Gibson, Culpin, and Brockway took part.

After discussion it was unanimously decided to reaffirm the resolution on the subject of plague passed at the meeting held in August, 1900.

Dr. **Hirschfeld** gave notice of motion "That the measures taken to stamp out Asiatic Plague are insufficient."

NEW SOUTH WALES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

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The regular monthly meeting of the Branch was held at the Royal Society's Room on Friday, 26th July, 1901, at 8.15 o'clock, Dr. Foreman (President) in the chair. There were also present Drs. Dixson, Megginson, Camac Wilkinson, Hankins, Ludowici, Bennet, Traill, Ellen Booth, Julia Carlisle-Thomas, Chas. MacLaurin, Mackenzie, Burfitt, Forster, C. V. Bowker, Tidswell, Angel Money, Scot Skirving, Sinclair Gillies, Herschel Harris, Litchfield, Fiaschi Clubbe, McDonagh, Levy, Agnes Bennett, Isbister, Jamieson, Flynn, Worrall, Gledden, Corlette, Taylor Young, Armstrong, MacCulloch, Millard, Abbott, Gordon Craig, Binney, Abbott, Allan, and others.

Visitors: Dr. Tilley, North Sydney; Dr. P. W. Boelke, Hunter's Hill.

The minutes of the previous meeting were read and confirmed.

The **President** announced the election of Drs. George McLean, S. B. Burge, and P. S. Jones, junr., and the nomination of Dr. J. M. Phipps, of Mosman, and Dr. P. Boelke, Hunter's Hill.

Dr. Newmarch was appointed a member of the Council.

Dr. **Camac Wilkinson** read a paper on "The Climate of the Sea Coast of New South Wales in Relation to the Treatment of Pulmonary Tuberculosis in the Early Stages." (See page 307.)

Dr. **Scot Skirving** said that he was present this evening more as the spokesman of Dr. Sydney Jones than because he desired to speak himself—Dr. Jones being unfortunately unable to be present. He desired to express his satisfaction at the careful manner in which Dr. Wilkinson had put his paper together, and further, that he had given us his reasons for his objection to the treatment of phthisis in the inland districts of the colony. It was not quite easy, on the spur of the moment, to reply to the voluminous statistics which the reader of the paper had launched upon us, still, Dr. Wilkinson had certainly told him nothing to alter his opinion on the subject at issue. As a matter of fact, only the first part of Dr. Wilkinson's paper contained anything on which the members of the profession were likely to hold diverse views, the rest was matter on which most of us were agreed. Indeed, those parts of Dr. Wilkinson's paper which he believed to be true were certainly not new, and what might, perhaps, be called new certainly did not carry conviction to his mind. What, then, were Dr. Wilkinson's objections to sending early cases of phthisis to the dry inland, upland regions of the colony? Apparently, when the paper was sifted, his objections rested upon the somewhat uncertain ground of statistics—statistics which went to show a higher death-rate in the country from phthisis than that in Sydney or the sea-coast. For his part he wondered how the death-rate on the coast was as large as it is, for in truth the coastal districts are being constantly depleted of tubercular cases—no one who can afford to go elsewhere staying there—and the reasons Dr. Wilkinson had given against this explanation were certainly anything but convincing. He supposed we were all agreed that pure air anywhere in the country was better than foul air in a great town. Hence he agreed that the North and South Coasts of New South Wales were certainly better than Sydney slums. At to the immunity from phthisis of the northern rivers claimed by Dr. Wilkinson, he could only say he had seen many cases from those districts, and further, that when he allowed cases from Sydney to go to the sea-coast instead of sending them to the interior he had invariably regretted his action in so doing. In truth there was no one perfect climate in New South Wales suitable for phthisis all the year round, but certainly experience had showed that dry inland, upland regions were most beneficial to consumptives. He agreed with Dr. Wilkinson that it was necessary to be sure that the patients who were sent away had comforts, good food and supervision. That went, as a matter of course, where ever they were sent. He objected to Dr. Wilkinson talking about the open air treatment as the "new treatment," "the new idea" and so forth as if it was something strange or occult and not well understood. We, all of us, for many a day, had been fully seized of the value of fresh air in the treatment of phthisis. If the patient were rich he could go from place to place in N.S.W. and find a good climate at all times of the year. If, however, we had to erect sanatoria in which cases lived all the year round, he contended it was better to live in one away from the coast than one permanently located on the coastal districts. And in proof of this he must again insist was the teaching of years of experience. The western plains were admirable in winter, but if one had to choose a place to live all the year round, a higher altitude was more advisable. Dr. Wilkinson also seemed to despise the value of mountain climates in increasing the richness of the blood. For his part in a disease like phthisis in which anæmia was often so prominent a feature he regarded the blood-making value of a high altitude as no small gain.—Dr. Scot Skirving then read the following notes which he had received from Dr. Sydney Jones bearing on the advantages of a high altitude as a location for a sanatorium.

"Dr. **Sydney Jones'** reasons why proposed Sanatoria in New South Wales should be placed at a high altitude, and remote from the sea-board:—

1st.—The acknowledged fact that the greater the altitude the purer the air—the freer from micro-organisms and dust. (Tyndall's experiments.)

2nd.—A moist atmosphere, such as prevails all through the summer on our sea-board has the effect of diminishing the quantity of vapour exhaled in the breath and thus checks the removal of the organic impurities (poisons), contained in that vapour. The air, as it comes from the sea, being highly saturated with watery vapour, cannot receive much more. The organic impurities eliminated from the blood in the process of respiration, are prevented from escaping and accumulate in the system, and with the checking of evaporation from the skin which arises from the same cause (air already saturated), largely explains the languor and lassitude which we all feel in the coastal districts during the summer months. On the other hand, in the dry air of the inland districts the breath vapour, with its organic impurities, is freely exhaled from the lungs—hence the invigorating effect of a dry atmosphere. The dry, rarefied air of the mountains and inland plains is also richer in ozone than the damp dense air of the low-lying districts.

3rd.—The rarefaction of the air at high altitudes compels an individual in order to supply himself with sufficient oxygen to quicken his breathing, consequently to use his respiratory muscles more freely, and thus to introduce into his lungs larger volumes of air. As a result of this, expansion of the chest is brought about.

4th.—To live at a high altitude in our sub-tropical clime is the only way in which we can secure a lower and more comfortable temperature at night. The distress of phthisical patients in the hot heavy atmosphere at night on our sea-board is well known.

5th.—Freedom from mosquitoes.

6th.—The teaching of experience demonstrates that such patients, as a rule, do well on the inland heights, provided the local conditions (housing, feeding, etc.). are not adverse, and do badly on the sea-board. There is an increased formation of red cells at high altitudes.

Dr. W. Gordon, physician to the Royal Devon and Exeter Hospital, in a paper in the *Lancet* of June 15th. 1901, shows that in that county shelter from the west and south-west winds, which are moist winds from the sea, and correspond to our east and north-east winds, is an important factor in the mortality from phthisis. In the parts of the county sheltered from these winds the mortality of phthisis is only half of the average annual mortality of England generally and of the unsheltered parts of the county. He points out that at Davos in Switzerland, at Nordrach in the Black Forest, and Gorbersdorf in Upper Silesia, all famous as health resorts for phthisical patients, there is a remarkable absence of damp winds. In Colorado, whilst there is wind, it is particularly dry. Dr. Gordon refers to Professor Beneke's experiments on the cooling of flasks of water exposed respectively to sea breezes and inland breezes. These demonstrated a more rapid cooling of the flasks exposed to the sea breezes, which are, of course, the damper. Perhaps here lies the explanation of the low mortality in the parts of Devon and Europe above referred to. 'May we not suppose (he remarks) that exposure to prevalent wet (*i.e.*, damp) winds is synonymous with the well-known expression "exposure to cold and wet," so productive of catarrhal affections which form a favourable soil for the implantation and growth of the bacillus of tubercle.'

That high altitudes are preferred for sanatoria is manifest from the fact that of the total number of Sanatoria in Germany, Switzerland, and America—72 in all—59 are 1,000 feet above sea level.

British Sanatoria for paying patients (seventeen). Among eleven of these is the elevation mentioned :—

Of these eleven, 3 are over 800 feet above sea level.
" " 1 is " 550 " "
" " 1 " 450 " "
" " 4 are " 400 " "
" " 1 is 350 " "
" " 1 is 200 " "
———
11

Of the six unaccounted for, three are at Bournemouth and one at Ventnor, in the Isle of Wight, and therefore probably only 100 or 150 feet above sea level. Bournemouth, selected probably on account of the mildness of the atmosphere and the abundant pine trees; Ventnor, for the shelter it affords from the cold north and east winds."

Dr. **MEGGINSON** said he always thought the plains of Australia as the most suitable for the treatment of tuberculosis. The climate was dry and equable. Who could sleep in the open air all through the year at Katoomba? He certainly preferred the western plains to the sea-coast of New South Wales.

Dr. **CHARLES MACLAURIN** said he had considerable respect for figures, and not quite so much respect for experience, which, as a rule, was merely what one thought, and if figures did not agree with the particular experience, then so much the worse for figures. He had always heard that the coastal districts were fatal to phthisis, but the figures produced by Dr. Wilkinson had certainly converted him. They had been put in such a way that they were simply unanswerable. There should be collective investigation made to find out the truth of the matter.

Dr. **JAMIESON** was not an implicit believer in statistics. All who lived in Sydney and its neighbourhood must admit that at certain seasons, say from the beginning of February to the end of March, the atmospheric conditions were certainly the opposite of refreshing. Such being the verdict of healthy persons the climate could not be regarded but as unfavourable to the treatment of phthisical patients. The climate of the West was altogether otherwise, and all who had made the trip to Bathurst could testify to the invigorating change contrasted with the climatic conditions of the sea coast.

Dr. **FOREMAN** had always taken great interest in questions relating to climate and soil. He had advocated Armidale as a most favourable place for consumptives, and he could not agree with Dr. Wilkinson that the sea coast was as suitable for such cases as the higher and more inland districts. On the Queensland coast, the speaker pointed out the fact that in the families of residents there, girls predominated. He would like Dr. Wilkinson to state how it was possible to diagnose phthisis in its early stage, when there was no physical sign of the disease, no tubercle in the sputum. He begged to thank Dr. Wilkinson for his admirable paper.

Dr. **WILKINSON**, in reply, said: I admit that this important question which I have attempted to discuss, has been forced upon me for immediate consideration by a circular which was recently issued to the medical profession by a layman asking for the individual opinions of medical men upon this complex subject, and that I am the medical man who is mentioned in that circular as holding opinions at variance with those of the other members of the executive of the scheme for the treatment of consumption in the poorer classes. I have brought forward my views in order that all evidence bearing on this question may be duly considered. I do not expect to convince in a moment, but I have no great belief in those who hastily form opinions from a limited experience and shut their eyes to evidence that does not favour such opinions. Dr. Scot Skirving may set more value on his personal experiences than on the broad facts that I have brought forward. I leave an intelligent public to draw its own conclusions. The clap trap argument that statistics lie is not worth discussing. It is not necessary to fully criticise the remarks made by Dr. Scot Skirving on behalf of Dr. Sydney Jones. I cannot believe that any one will pay heed to the casual observations of Professor Tyndall a quarter of a century ago. Such experiments can have no particular bearing on the subject under discussion. The bacteria that play a part in the course of tuberculosis are streptococci and other known forms. Tyndall's experiments have no relation to these. Everyone knows the mountain air is stimulating, especially for a time, but do we, therefore, argue that mountain air is the only thing necessary to restore or maintain health. Any change of air and scene may be stimulating. Has the climate of the mountain never an injurious effect? Is it equally favourable in winter and summer? These are questions that have to be answered. Dr. Jamieson does not approve of the coast because for two or three months the climate may be oppressive and enervating. He forgets that for nine months the climate is certainly propitious. No climate in the world is good at all times and seasons. I would strongly commend the remarks of Dr. Charles MacLaurin to your attention. He emphasizes the fact that too often preconceived notions have been a serious bar to progress. However, after all, my views may contain only a fraction of truth. I am satisfied if I have shown that the views I have long held have some striking evidence in their support, and that in the interests of truth further investigation is indispensable.

Dr. Sydney Jamieson showed and demonstrated the following three pathological preparations :—1. A kidney from the body of a man who died rather suddenly of uræmia. The organ showed marked signs of hydro-nephrosis and septic pyelo-nephritis. Before opening the pelvis the "feel" of the organ resembled that produced by handling a bag of shot. This was found to be due to the presence in the pelvis of an enormous number of calculi (in all 5923), varying in size from a pin-head to a pea. On analysis the stones were found to consist almost entirely of pure uric acid. 2. The larynx of a young man who was admitted to the Sydney Hospital a few days ago in a moribund state complaining of urgent dyspnœa. An immediate tracheotomy was performed in the casualty room by Dr. Cedric Bowker, but was unsuccessful. *Post-mortem*, the case proved to be one of acute inflammatory œdema of the larynx, probably streptococcal in origin. A bacteriological examination is now being conducted, and as it is not yet completed I am unable to say what the exact cause was. The œdematous swelling is so great as to almost obliterate the rima glottidis. The mucous membrane covering the epiglottis, aryteno-epiglottidean fold and arytenoid cartilages is so swollen as to entirely destroy, or rather obscure, the normal relations of the parts. On the surface of the tonsil are to be seen several small ragged ulcers covered by necrotic shreds of tissue and fibrinous exudation. 3. A larynx from a case of suicidal cut throat. It was removed from the body of a young woman who was found floating in the waters of Cook's River with her throat cut. The police were at first strongly of the opinion that the case was one of homicide, but a careful examination of the wound at once led me to the belief that the wound was self inflicted. Across the middle of the throat, opposite the thyroid cartilage, was a wound three inches in length, dividing all the structures down to and including the larynx. The large vessels had completely escaped. In the base of the wound no less than fifteen minor wounds of the larynx were found. There were no wounds about the hands or contusions on the body indicative of resistance. The body showed the usual signs of asphyxia by drowning. The multiplicity and ineffectual characters of the wounds, and the absence of any signs of resistance, led me to suspect that the case was one of suicide, and the further investigations proved that such was the case.

The Council met at the Editor's Room, on Tuesday, 2nd July, at 8.30 o'clock. Present: Drs. Foreman, Rennie, Jamieson, Hinder, Crago, Knaggs, Hankins, Fiaschi, Abbott, Todd, and Brady.

The minutes of the previous meeting were read and confirmed.

The following members were elected: Drs. George McLean, S. Bruce Burge, and P. S. Jones, junr.

Resolved : That circulars be sent to the medical men resident in the city and suburbs, convening a meeting of the medical profession to be held at the Royal Society's Room on Friday, 12th July, when the following subject would be submitted for discussion :—"Whether it is expedient that honorary officers of public hospitals should receive fees for the treatment of any patient in these hospitals.

Resolved : That Dr. MacLaurin be asked to take the chair at the meeting.

Accounts passed : Stamps and stationery, £2 0s. 6d. ; refreshments, £3 ; wreath, £1 1s.

Adjourned Meeting of the Council.

An adjourned meeting of the Council was held at the Editor's Room, on Tuesday, 9th July. Present : Drs. Foreman, Worrall, Hinder, Crago, Knaggs, Hankins, Quaife, Todd, Fiaschi, Jamieson, Brady, and Rennie.

A letter from Dr. Clubbe, with reference to the *Australasian Medical Gazette*, was read.

Resolved—"That a Sub-Committee consisting of Drs. Fiaschi, Todd, Rennie, and Hankins be appointed to furnish a report on the working of the *Australasian Medical Gazette*.

The Council met at the Editor's Rooms, on Thursday evening, 8th August, at 8.30 o'clock. Present : Drs. Foreman, Rennie, Jamieson, Hankins, Brady, Hinder, Fiaschi, Todd, Crago, and Worrall.

The minutes of the previous meetings were read and confirmed.

An apology was received from Dr. Abbott.

The following members were elected :—Drs. P. W. Boelke, and J. H. Phipps.

Read letter from the Superintendent of the Australian Ambulance Association, asking for a conference. Resolved that he be asked in the first instance to put his proposals in writing.

Read letter from Dr. Megginson with reference to People's Prudential Association.

Read letter from the Hon. Secretary of the Intercolonial Medical Congress with regard to an Australasian Medical Association. Letter to be published in the *Australasian Medical Gazette*.

THE REPORT OF THE SUB-COMMITTEE ON THE WORKING OF THE "AUSTRALASIAN MEDICAL GAZETTE."

Correspondence on this subject was read from Dr. Quaife, explaining his inability to attend, and from Dr. S. Knaggs, resigning his position as Editor of the *Australasian Medical Gazette*.

Resolved—"That the report of the Sub-Committee be received."

Resolved—"That Dr. Knaggs' resignation of the office of Editor be accepted, and that the Hon. Secretary be instructed to write conveying the thanks of the Council to Dr. Knaggs for the valuable service he has rendered to the Branch in his able conduct, during many years, of the *Australasian Medical Gazette*."

Resolved—"That pending further arrangements, Dr. Crago be appointed to conduct the *Australasian Medical Gazette*."

"That the Sub-Committee already appointed be asked to continue their inquiries, and report as to the future conduct of the *Gazette*.

Resolved "That Dr. Crago's name be added to the Sub-Committee.

The Hon. Treasurer reported the following credit balances :—General Account, £258 15s. 5d. ; and the *Gazette* account, £159 19s. 11d.

Accounts passed :—W. Pepperday, £12 9s. ; Stamps, £3 2s. 1d.

SOUTH AUSTRALIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

MONTHLY meeting held on July 25th, 1901 at the University. Present: the President, Dr. Todd, in the chair, Prof. Watson, Drs. J. A. G. Hamilton, W. A. Verco, Robertson, Evans, Gregerson, Cleland, Lendon, Swift, A. A. Hamilton, Sweetapple, A. E. Wigg, Singleton, Gault, Brummitt, Lawrence, Cooper, Wilson, Smeaton, Cudmore, Jay, J. C. Verco, Symons, W. T. Hayward, Plummer.

The minutes taken as read.

Dr. **TODD** showed a boy, *æt.* 13, with a hole in his cranium just above his right temple the size of a five shilling piece. This showed a pulsating swelling of the brain which bulged considerably when the boy stooped. It was due to a compound depressed fracture caused by a fall on to the pavement. He was trephined directly after the accident by Mr. Herbert Allingham of London. The boy had convulsions for some months but is now perfectly well.

PATHOLOGICAL SPECIMENS.

Dr. **POULTON.**—A case of a lacerated wound of the liver, etc., caused by a circular saw. The man lived for three weeks afterwards.

Dr. **HAYWARD.**—A kidney with dilated pelvis and calyces and distended ureter for half its length due to a kink about midway, the opening in the bladder being almost excluded.

Dr. **GILES.**—A sarcoma of the lower maxilla.

Prof. **WATSON** read a paper on "Gunshot Wounds of the Blood Vessels and Nerves" (see p. 318).

BALLARAT DISTRICT BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

THE Ordinary Quarterly Meeting of the Branch was held at Ballarat on Thursday, July 25th, at 8.30 p.m.

Present: Drs. Bennett, Champion, Davies, Martin, Mitchell, Morrison, M'Gowan, Pinnock, Richards, Salmon, Robert Scott, Usher, and Wilson, and Mr. T. R. Treloar.

Apologies were received from the President and Dr. G. A. Palmer. Dr. R. Scott was asked to preside.

The minutes of the previous meeting were read and confirmed, and accounts amounting to £1 2s. 6d. passed for payment.

Dr. T. A. **WILSON** read a paper on "An Obscure Cerebral Injury" (reported at p. 323).

In the discussion which followed, Dr. Morrison gave the history of a case in his own practice, where there was hæmorrhage from a meningeal vessel. The progressive symptoms were more rapid but were otherwise very similar to those detailed in Dr. Wilson's case.

Dr. **CHAMPION** read "Notes on a case of Mediastinal Sarcoma" (reported at p. 328), and exhibited the specimens. He was unable to specify the origin of the tumour, as it had not yet been dissected out. He was clearly satisfied that no evidence of typhoid fever was discovered *post-mortem.*

Dr. **PINNOCK** read a paper on "Phototherapy" (reported at p. 321), which was followed by a somewhat animated discussion, in which several members took part. The members of the Branch were formally invited to witness the treatment in progress, but there was a general feeling among the members that it would have been courteous to have invited them before representatives of the lay press had been admitted to a private demonstration.

Dr. **PINNOCK** moved "That the Solicitor-General be written to, asking his assistance in inducing the police to give reasonable notice to medical men required to make *post-mortem* examinations, and also that complaint be made to the authorities concerning the dirty condition of the Morgue." This was seconded by Dr. **SALMON**, and carried unanimously.

Dr. **MORRISON** moved "That a deputation of the President, Hon. Secretary and mover be appointed to wait on the City Council, urging them to take some steps to prevent the unnecessary and continual pollution of the lake." This was also carried unanimously.

The HON. **SECRETARY** asked that a special meeting of the Branch be called for the last Thursday in October to amend Rule 10 of the By-laws. This was agreed to.

Dr. **SALMON** brought forward the Circular relating to a memorial to Professor Rudolph Virchow. He made a canvass in the room which resulted in the sum of £3 5s. being forwarded to the local Secretary.

Dr. **SALMON** brought forward the disadvantages of the Ballarat Lunatic Asylum not being a receiving-house, and it was thereupon resolved to request the Chief Secretary and the local Members of Parliament to make arrangements for local cases to be admitted there instead of being sent away to Ararat.

Dr. **BENNETT** exhibited two large ovarian cystomata, removed by Dr. Scott.

The meeting then closed.

THE WESTERN AUSTRALIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

THE ordinary meeting was held on July 15th, at the Perth Hospital.

Present: Drs. Tratman (in the chair), Saw, Astles, Dermer, Officer, Thompson, Horrocks, Harper, Lotz, Kelsall, Harvey, Davy, Randell, Trethowan, Black, and Anderson (hon. sec.).

The minutes of the last meeting were read and confirmed.

Leonard Smith O'Flaherty, L.R.C.S., of Bulong, was then elected as a member of the Branch.

Frederick Stanley Butler, M.B., of Coolgardie, was proposed by Dr. Saw, and seconded by Dr. Anderson, as a candidate for election at the next meeting.

A letter was then read from Captain Wolfe Murray to the effect that the copy of the address to the Duke of York had been received.

It was proposed by Dr. Davy, and seconded by Dr. Anderson, that the address should be signed by the members of the council, and by Dr. Kelsall as representing the Address Committee and the members generally. Carried.

It was decided that the Hon. Treasurer should open a subscription list amongst members to defray the cost of the address.

Medical Defence.—The sub-committee, through Dr. Tratman, reported that the question of Medical Defence had been carefully considered by them, and they were of opinion that it could not be carried out by the Branch itself; but recommended that a meeting of members should be held at the close of the present meeting, when a scheme which had been drawn up could be considered. This report and recommendation were adopted.

PAPERS.

Dr. **DAVY** read some notes of a "Case of Hydatid of the Abdomen," on which he had operated five weeks after confinement. Abdominal distention persisted after delivery, and a careful examination led to the diagnosis of a large cyst. Abdominal section was performed, and it was found to be an enormous multilocular cyst. The abdomen had measured 54 inches at the umbilicus. The recti were five inches apart. 28½ pints of fluid were evacuated from the cyst, which was treated by Lindemann's method.

Dr. **Anderson** then read a paper on "An analysis of the fatal cases occurring in 300 consecutive cases of Typhoid Fever, with *post-mortem* notes." A discussion took place, bearing especially on the form of pneumonia met with, in which Drs. Kelsall, Astles, Davy and Tratman took part.

Dr. **Horrocks** then read some notes on a "Case of Strangulated Inguinal Hernia in a Child aged 16½ days." The child was seen and operated upon six hours after the onset of symptoms. The hernia was of the ordinary congenital kind, and the strangulation was at the internal ring. Child had phimosis which was operated upon at the same time. The case was thought to be one of the youngest recorded as regards the age of the patient. In the discussion that ensued, Dr. Saw mentioned that he had seen two cases in infants, one three weeks and the other four weeks old.

The following specimens were also shown :—

Dr. **Harvey**.—Carcinoma of fundus uteri, removed by vaginal hysterectomy.

Dr. **Saw**.—Concretion from appendix with a hair from moustache as a nucleus ; also a collection of gall stones removed from gall bladder.

The ordinary meeting then closed.

Special Meeting.—This was held at the close of the ordinary meeting. Sixteen members were present, the President (Dr. Tratman), in the chair.

It was carried unanimously that By-law VI. should be altered to read thus :—

"The annual subscription of the Branch shall be £2 2s. this amount to include the supply of the *British Medical Journal* and *Australasian Medical Gazette*."

The meeting then terminated.

The Address to the Duke of York.

The address was engrossed on fine paper, surrounded by beautifully hand-painted Australian flowers, and was in a large reddish-brown Morocco case, suitably inscribed on the cover.

The following is a copy of the text of the address :—

May it please your Royal Highnesses,

"We, members of the West Australian Branch of the British Medical Association, through our President, Dr. Tratman, do most cordially welcome you to this State. We express our gratitude to your august family, for the welcome favour and encouragement in our efforts to relieve the sufferings of mankind, which they continually bestow upon us.

"We are emboldened to approach you, remembering that His Most Gracious Majesty, the King, shortly before his accession to the throne, became, not only a Fellow of the Colleges of Physicians and Surgeons, but also an honorary member of the British Medical Association.

"In expressing our heartfelt joy at seeing you the heir to this great and illustrious Empire, engaged in the task of gaining a knowledge of your future subjects in these remote southern states, let us express a hope that your journey has been a pure round of pleasure to your Royal Highnesses.

"May every blessing that this world can give be showered upon you both, including that most precious gift of all—perfect health.

"We are, your Royal Highnesses' most loyal and obedient servants,

Frank Tratman
T. G. Davy
Harvey E. Astles
W. Trethowan
T. L. Anderson
Athel J. H. Saw
H. T. Kelsall
W. T. Dermer."

PROCEEDINGS OF OTHER SOCIETIES.

A meeting of the Sydney Metropolitan Medical Association was held on the evening of July 5th, at Shadler's Café, Mr. Hankins being in the chair. There were thirty-eight members present.

Mr. **Hankins** read a short paper on "Remuneration for Professional Attendance," which was discussed by Drs. Munro, Binney, Craig, Megginson, West and Pockley.

A committee was appointed to consider and report to a subsequent meeting on the charges at present in vogue for surgical operations.

The meeting then resolved itself into a social gathering, and a pleasant evening was spent, thanks mainly to the efforts of Mr. Hankins, who had got together an excellent musical programme.

A special meeting of the Sydney Metropolitan Medical Association was held at 121 Bathurst-street on the evening of July 25th, to consider the action of the William Gane Lodge, I.O.O.F., Newtown, in dismissing its medical officers for refusing to sign a new agreement binding them to pay expenses of travelling to night calls. Dr. Clubbe was in the chair, and there were twenty-one members present.

It was unanimously resolved "That the medical officers of the William Gane Lodge be accorded our unreserved support in resisting the agreement, which prejudices our common interests, and that the members of this Association will abstain from tendering to oppose the re-election of the present medical officers."

The **Secretary** was instructed to send copies of the resolution to all members of the Association, and to the secretaries of the kindred associations.

THE MEDICAL BENEVOLENT FUND.

The following additional subscriptions have been received :—(Two years' subscriptions) Drs. A. E. Mills, Dr. F. A. Bennet, Dr. William Middleton, "Anonymous" ; (one years' subscription) Dr. Egan, Dr. Thane.

H. L. MAITLAND,
Hon. Secretary.

6 Lyons' Terrace,
Liverpool Street, Sydney.

A MEETING OF THE MEDICAL PROFESSION OF SYDNEY.

A general meeting of the medical profession of the city and suburbs was held at the Royal Society's Room on Friday, 12th July, 1901, the Hon. Dr. MacLaurin in the chair. There were also present Drs. Hodgson, Camac Wilkinson, Todd, Taylor Young, Clubbe, Hankins, Furnival, Kerr, Bowman, Chas. MacLaurin, Foreman, Goode, Gordon Craig, Hinder, Bennet, Gill, Gordon MacLeod, Pockley, Traill, Mills, Fiaschi, Crago, Megginson, Gledden, Gillies, Kater, Palmer, Herschel Harris, Flynn, Harriet Biffin, Wood, Jamieson, Maitland, Dixson, Litchfield, Brady, Cosh, Worrall, West, Thring, Paton, Morton, Lipscomb, Savage, McLean, John Harris, Halliday, the Hon. Dr. Nash, and others.

The following circular convening the meeting was read :—

"A meeting of the medical profession of Sydney and suburbs will be held at the Rooms of the Royal Society, Elizabeth Street, on Friday, 12th July, at 8.30 p.m., to consider : 'Whether it is expedient that members of the honorary staff of public hospitals should receive fees from any patient treated in those Hospitals.'"

The Hon. H. N. MacLaurin, M.D., presided.

An apology was received from Dr. Abbott.

A letter was read from Dr. C. W. McCarthy with reference to the subject.

The **Chairman** then called upon Dr. Traill to move the first resolution.

Dr. **Traill** said he would move : "That it is inexpedient that members of the Honorary Staff of public hospitals should receive fees from any patients treated in those hospitals." He (Dr. Traill) thought that medical officers who were styled honorary should not receive fees under any circumstances. If the public knew that at one end of the hospital patients were treated free and at the other end handsome fees were paid for practically the same work, they would not be satisfied. There could be no question that a great deal of harm arose from the practice, and it interfered in a great measure with the ethics of the profession. It was a very bad example to the younger members of the profession, especially those who had been trained in the Sydney University. There were plenty of private hospitals in and around Sydney to deal with these patients, and the private wards entered unfairly in competition with the private hospitals, seeing that the public hospitals were largely supported by public subscription. He had much pleasure in moving the resolution.

Mr. **Hankins**, in seconding the resolution, said that the practice in question was inexpedient for several reasons, the first of which was that it was contrary to the true professional spirit. If this reason was considered out of date, another, which might appeal to a wider circle, was that the system dealt harshly with practitioners who were not so fortunate as to hold hospital appointments. In the speaker's opinion, the refusal of fees by the medical attendant, even if they were still collected for the benefit of the hospital, would tend to diminish the use of private wards. And, if private wards must be maintained in full swing for the support of the institution, let them be in a separate building distinct from the Hospital and open to any practitioner to attend cases therein.

Dr. **Foreman** said in the face of the letter written by Dr. McCarthy, and the fact that the medical staffs of the hospitals concerned having stopped away from this meeting, he thought it would be as well if he stated what had led up to the meeting. Some time ago it was decided to appoint an Investigation Committee, and in its first report this subject was first ventilated. In that report there were some few errors, and with a view of having these errors rectified a deputation of the gentlemen interested waited upon the Council of the British Medical Association. The mistakes complained of were corrected, and the deputation expressed themselves as being satisfied with the corrections. Before, however, the whole question was entered upon, he, as President of the Council, stated that the subject of these private wards was too big a question for the Council to deal with finally, and that it must be submitted to the whole body of the profession. The delegates requested an inquiry into the question, hence this meeting.

Dr. **Sinclair Gillies** said he felt very strongly upon this subject, yet he could not but think that the time for dealing with the matter was inopportune. He would therefore move "That the consideration of the question be postponed for the present." If we embarked in this matter and cut off twenty men, who were honourable members, at the present time, it would be playing into the hands of the Lodges. If any personal attack were made upon these men they were bound to resent it. We had a good deal upon our hands at the present time, and we must present a solid front if any good was to come. The public were with the doctors to a certain extent in the Lodge matter. Some of the men who held these appointments said they were quite powerless to alter the present arrangement, and did not desire to take any fees, but were compelled to do so or resign. He (Dr. Gillies) thought the time for moving in this matter most inopportune, therefore he moved the amendment.

Dr. **Binney** seconded the amendment, and said he quite agreed with Dr. Gillies in all he had said, and thought that if this resolution were carried at the present time it would be disastrous.

Dr. **Fiaschi** said he desired to speak against the amendment, which he considered was only shelving the question. There could be no doubt that we wanted to establish an ethical standard. The whole medical profession could not be bound down because one section was fighting the Lodge question. This was a question of a general principle, and should be dealt with as such, independently of all other considerations. The honorary staff of a large hospital should not under any circumstances receive fees for attending patients in the hospitals. They should refuse to take the fees and treat all patients free. He did not see why any member should take umbrage at this meeting, as we all felt that it was not intended to deal with any one person, but rather to settle a very vexed question. We should affirm our idea that honorary officers should not receive any fee for work done in the hospital. He had much pleasure in supporting the resolution.

Dr. **Gordon Craig** said Dr. Fiaschi had ably put the case. He (Dr. Craig) did not think the question under discussion was of as great importance to the medical profession as the question of Lodges. He was very pleased that he had nothing further to do with Lodges, therefore he could speak without any bias. The matter under consideration was an abstract one and no doubt of importance, yet the fight with the Lodges should not be interfered with at the present juncture. The feeling at the present time was intense, and if this resolution were passed to-night it would cause a split which would be hurtful to the profession. He would support the amendment, as he thought it would be much better to postpone the matter, at any rate for a time.

Dr. **Megginson** said the question was an ethical one, and should be dealt with as such. It would do no good to make any direct attack upon any one particular person. Suppose this receipt of fees ceased, the same trading in patients would go on.

Dr. **Clubbe** ventured to think that no one would disagree with the abstract question under discussion ; but was it expedient to put the question at the present time? It was absolutely necessary that we should all stick together in the present fight with the Friendly

Societies—then why deal with this matter at this time and so make a division in our ranks? Cohesion of the profession at the present time was necessary.

Dr. **BRADY** advised the postponement of the question. It was perhaps more important to some than the Lodge question, but there could be no two opinions that the time for moving was inopportune. He would vote for the amendment, and hoped that it would be carried, as he was sure that members of the profession would be sorry hereafter if the resolution were affirmed to-night. It would cause a split in the profession which would play into the hands of the enemy and would take a long time to heal.

Dr. **CRAGO** said he was sorry to differ from some of his colleagues on the Council, but he thought it was a mistake to bring this matter on at present. He appealed to those present to accept Dr. Brady's advice, and to pass the previous question.

Dr. **HINDER** said that these men deny that the profession suffer from this practice, but evidence could be adduced proving that the profession do suffer, and suffer considerably. At the present juncture we should take up a strong ethical position. He was surprised to find the junior medical men supporting the postponement of this very serious question.

Dr. **FURNIVAL** said if this ethical standard was to be set up many honourable members in the country would be put in a very awkward position, as the practice which was being condemned was largely the practice in the country centres. He failed to see the justice of refusing the country practitioners the right to use the private wards of the hospitals for their patients, so long as proper fees were paid. He did not think there could be any comparison between this subject and the Lodges—one was a fight for bread and butter, while the other was only felt by a limited number. He sincerely hoped that there would not be any split over this matter, and would vote for the amendment. In his opinion the general practitioner suffered just as much from the private hospitals as from the private wards of public hospitals. He had known of patients being taken into the private hospitals and afterwards being lost to their regular medical man.

Dr. **BOWMAN** said he would support the amendment. The custom of having private wards in country hospitals had been in vogue for a number of years, and it would be found that the country practitioner would stick to his privileges. He hoped the question would be postponed until the whole subject could be properly dealt with.

Dr. **MILLS** said he was very pleased with the remarks of Drs. Hinder and Fiaschi. He was somewhat surprised to find the junior members of the profession supporting the postponement of this very serious matter. He could not understand why the Lodge question had been introduced into this discussion, the subjects were not identical. We were asked to express an opinion on an abstract question, and should be prepared to do so.

Dr. **CAMAC WILKINSON** said if this resolution was passed these men must take notice of it, and as far as he was concerned he had not heard any evidence that they were in the habit of taking fees. There could be no question but that this meeting was of opinion that honorary officers to public hospitals should not receive fees. The comparison between the country and city hospitals was hardly happy, as they were so entirely different. He thoroughly agreed that it would be a great mistake to pass this resolution to-night, but still thought that the principle should be affirmed in some way.

Dr. **NASH** said he was just as much in a fog now as when he came to the meeting. He was fully in accord with the resolution, but thought the time inopportune; indeed, there seemed to be a division of opinion not only among the general members, but also among the Council of the British Medical Association on the subject, therefore it would be better to postpone it. Some day it might be possible to do as they have done in Germany—that is, lay down some ethical code which would be binding upon one and all. It was with great regret that he would be compelled to vote against the resolution, although it had his entire sympathy, but he thought that it would help the fight with the Lodges if the profession were saved from a split at the present time.

Dr. **TODD** said it was the duty of all medical men to fight against hospital abuses. In the last number of *The British Medical Journal* he noticed a heading, "Fees Taken from Hospital Patients," but found that it was only a local squabble. However, the leader dealing with the subject clearly laid down that no medical man could defend himself for taking fees from hospital patients. Not one of the speakers had spoken against the resolution. These hospitals were public hospitals, and must be treated as such. These private wards having been in existence for some years, we must be careful how we proceed, but the abstract question could only be decided one way. He would like to see the principle approved, but we should be doing the profession an injury if a split were brought about at the present time.

Dr. **FOREMAN** said he would like to speak to the amendment. It should be clearly understood that this was never intended to be an attack upon the medical officers of certain hospitals. We should be certainly doing an injury to the profession if a split should be brought about at the present time, but no one intended that there should be a split. The deputation from one of these hospitals forced this matter on the Council of the British Medical Association, so what could the Council do but put the matter before the whole of the medical profession of the city and suburbs. The Association was not forcing this matter forward, and no one would be more sorry than he if these men resigned their membership of the Branch. He thought it a great pity the Lodge question had been brought in at this time, and hoped that the resolution would be carried.

Dr. **POCKLEY** said it was unfortunate that the circular convening the meeting had been signed by the hon. secretary of the Branch. It should be remembered that this was a meeting of the profession and not of the Branch, therefore the threatened resignation of these gentlemen was to be pitied. The question under discussion was an ethical principle. The Friendly Societies would like to see a split in the profession, but it would be so small that it could not affect the general body of the profession.

Dr. **TRAILL** in reply said: Were we to be intimidated from doing our duty because of the threatened resignation of half-a-dozen men? He hoped that they would vote for the resolution.

The **CHAIRMAN** then put the amendment, which was carried by a small majority.

A vote of thanks was accorded to the Hon. Dr. MacLaurin for having presided, and the meeting terminated.

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THE AUSTRALASIAN
MEDICAL GAZETTE.

EDITED FOR THE PROPRIETORS BY
SAMUEL T. KNAGGS, SYDNEY, N.S.W.;
AND FOR THE OTHER BRANCHES OF THE
BRITISH MEDICAL ASSOCIATION BY
A. B. BROCKWAY, BRISBANE, Q.; H. W. BRYANT,
WILLIAMSTOWN, VIC.; J. B. GUNSON,
ADELAIDE, S.A.; AND J. MASON, OTAKI, N.Z.

SYDNEY, 20TH AUGUST, 1901.

EDITORIALS.

THE CLIMATIC TREATMENT OF PULMONARY CONSUMPTION.

◆

SOME four years ago a public meeting was held in the Town Hall, Sydney, under the presidency of Lord Hampden, for the purpose of raising funds to establish some Homes for Consumptives as a memorial of the late Queen Victoria's Diamond Jubilee. A considerable amount of money was subscribed, and additional sums have since been received from various sources; but the amount contributed has fallen short of what it should have been, whether we regard it from the standpoint of a memorial of the late Queen's Diamond Jubilee, or from that of a noble and urgent charitable work. Further, except that the interest of the money subscribed has been used to maintain the hospital for consumptives at Thirlmere, established and carried on for many years by the splendid generosity of Colonel Goodlet, nothing definite has been accomplished towards the establishment of country sanatoria for phthisical patients which was one of the objects in view in holding the meeting referred to. There is no doubt that Dr. Wilkinson is responsible to a large extent for checking the flow of subscriptions in the first place, and for the delay in the establishment of the sanatoria in the second place. Four years ago Dr. Wilkinson assured the meeting at the Town Hall that in six months time, there would be an absolute cure for tuberculosis. He referred, of course, to the new tuberculin just introduced at that time by Professor Koch. The absolute cure has, unfortunately, not yet been attained, and whatever may be accomplished in the future in the production of a curative tuberculin, we must note that the energies of physicians and philanthropists all the world over are at present directed to the treatment of pulmonary tuberculosis in special sanatoria on suitable sites. It is a matter of extreme urgency that the Committee of the Queen Victoria Memorial Homes for Consumptives should acquire a suitable site, so that no further delay may take place in affording the poor consumptive that method of treatment which is now recognised by all competent authorities to be the best known at the present time. In a paper read at the last meeting of the New South Wales Branch of the British Medical Association, and published in another part of this issue, Dr. Wilkinson argues that the coast line is the most suitable climate for the treatment of early cases of tuberculosis, and bases his arguments upon some statistics which go to prove that the death-rate from pulmonary tuberculosis is higher on the mountains and inland plains than along the sea coast. We must confess that we fail to see how statistics, based, we presume, upon the Registrar-General's returns of deaths from tuberculosis (and therefore certified as such by ordinary medical practitioners), can possibly be used to prove that the sea coast is a suitable climate for the treatment of cases of pulmonary phthisis in such an early stage that there are no physical signs of disease in the chest, and no expectoration, and in which the diagnosis is made purely upon a reaction to an injection of tuberculin. The experience of physicians who have practised in New South Wales for many years, and who have had many cases of phthisis under treatment, shows conclusively that, while during the winter months the sea coast climate may be quite suitable for phthisical patients, the moist heat of the coast-line during the summer months is most enervating and exhausting to this class of patients, increasing the amount of cough and expectoration and impairing seriously the appetite and digestion. The immediate improvement which takes place in these patients on their being sent inland, under suitable conditions proves beyond a doubt, that at any rate the drier inland climate, is most suitable for them in the summer time. We have to consider in this matter not the patients who are in such an early stage that 99 per cent. will probably not come under the notice of any medical man, but that large number of cases who have already developed physical signs, and who sooner or later come under the observation of medical men, either in private or hospital practice. It is this class which are still in an early, curable stage, that the committee of the Queen Victoria Memorial Homes for Consumptives have to consider first in their scheme for providing for the treatment of cases of pulmonary phthisis in this State, and we hope that in a very short time a suitable site will be secured either on the eastern slopes of the Mountains or perhaps somewhat nearer Sydney in the Dural or Pennant Hills district where the air is pure and dry and free from the mugginess of the summer. It is a matter to be deplored that the general public should see divided counsels prevailing in the committee of this institution, and we would appeal to Dr. Wilkinson to use his intellect and his pen in furthering the interests of this really urgent and charitable movement, instead of, as at present, obstructing its progress by a persistent policy of opposition.

The Queensland Medical Board and Mr. Armitage Forbes.

In our issue of 20th August, 1900, we inserted a letter from the Secretary of the Queensland Medical Board, covering a statement from the President, that for certain reasons that body had refused to re-insert the name of Mr. Armitage Forbes in the Register of Medical Practitioners of that State. We now learn, from the Brisbane *Evening Observer* of 8th May, that Mr. Armitage Forbes has succeeded in an appeal to the Full Court, in obtaining a *mandamus* ordering the Board to place his name upon the Register.

THE HOSPITAL SATURDAY FUND, AN INSIDIOUS ATTACK ON THE MEDICAL PROFESSION.

It is often claimed by the outside public that the medical profession is a close corporation, and possesses undue advantages. Certainly none but duly qualified men are entitled to practise medicine, but in this respect the restriction is more for the protection of the public than for the benefit of the practitioners themselves. In all other respects the profession is one which is open to competition—the competition of merit—and there are no privileges which the magic prefix "doctor" confers which are not earned except by great sacrifice of time and money. Its only privilege is that it is expected to do more work gratuitously than any other, and the humblest practitioner is called upon during the year to perform many acts of a professional nature for which he knows he will never obtain payment. In the higher ranks and in the metropolitan centres, this claim upon the services of the leading men both in surgery and medicine, is a heavy one and is worked in an organised manner by the various hospitals to which they are expected to give their services gratuitously. That these services are given freely and gladly goes without saying. There is supposed to be a certain *quid pro quo* obtained by the prestige conferred upon an honorary surgeon or physician, but there is not the slightest doubt that in our hospitals work of the highest kind is done to an extent which, if it were paid for by only moderate fees, would represent an immense annual sum to those performing it. However, that is not the point at issue, attendance at the hospitals is a labour of love and full of professional interest, and so long as the patients receiving these valuable gratuitous services are of the class which cannot afford to pay for them, no one would ask for a change. Unfortunately, however, it is a well-known fact that the hospitals, which were founded and are supported by the public for the use of necessitous persons, are used to a great extent by those of a class well able to pay for the attendance of medical men, either in private hospitals or their own homes. In some hospitals, there is a natural desire to take in patients who will pay something, which will help the hospital funds, but which of course will not go to the medical attendants. But in the larger hospitals a strong effort is being made to keep out this practice, and with good results, though, of course, fraud will always be practised. It is in this direction that a new and insidious attack is being made upon the privileges of the medical profession. Some eight years ago there was established in Sydney what is known as the Hospital Saturday Fund, an institution which in its primary objects is most admirable. These objects are set out as follows:—"The Hospital Saturday Fund is an association of men and women who make it their business to interest the people generally in the welfare of their medical charities, and to organise continuous collections all the year round and every year for their support It is especially intended to afford to wage-earners and others who cannot subscribe large amounts an opportunity of contributing small sums, ranging from 1d. per week and upwards, according to their means, weekly or at such other short intervals as may be more convenient" We are assured that every medical man welcomed that fund as a means of assisting the Sydney hospitals, and if it had been retained in its original form no objection could have been raised against it. But latterly, a most objectionable alteration has been made in its method of working, the tendency of which is rapidly in the direction of making it a large hospital club for the benefit of persons earning regular wages, and in no sense needy. Amongst the various methods of raising funds is one by which sums of money are collected in various business establishments, by means of cards. The staffs agree to pay a small sum each per week, very often 1d., and in the course of a year this makes an acceptable amount. Last year there were 109 establishments in Sydney at which these "Industrial" collections were made, and the total raised was £935, the sums ranging from 5s. 11d. to £200. Originally these amounts were no doubt given for the general objects of the fund, but during the last year or two an entirely new factor has been introduced. The contributors to these "Industrial" funds have been gradually led to understand that, as a return for their penny a week or so, they will have the privilege of admission and free treatment at any hospital to which they may be "recommended" by the executive of the fund. In fact the practice has become a general one, and at one establishment in particular, where the largest collection is made in the year, the contributors have become so arrogant as to make conditions for the allotment of their money. A peculiar "set" has been made against the Prince Alfred Hospital by the organisers of this sub-fund, who have given to the central body only with the stipulation that no portion of their contribution shall go to this hospital. Consequently that institution has received during the current year less by £25 than in 1900. This attitude is largely due to the fact that the hospital has declined to accept as non-paying patients some of those "recommended" by this establishment, when the patients could pay, which was usually the case, as they were mostly in receipt of regular wages. Consequently the executive of the Hospital Saturday Fund has now openly adopted a method which we conceive to be absolutely opposed to the original intention of the fund, and also to the principle upon which gratuitous medical services are given to the hospitals. It has issued a circular to the hospitals notifying that in future where any patients who are "industrial" contributors are accepted for treatment the Hospital Saturday Fund will be responsible for payment on their behalf at the rate of 4s. per diem. This means, if it means anything at all, that a huge new club has been established, the members of which, earning regular wages, pay, say, 1d. a week, and if they need hospital treatment maintenance money is guaranteed for them to the extent quoted, *out of the funds contributed by the public for the needy and destitute.* It may, of course, be argued that the contributions from the "industrial" section are kept separate from the general funds. That may be so, but the circular of the Fund Executive guarantees payment for patients without any reservation; and if the industrial funds become depleted, what is there to fall back upon but the main fund? In any case, the fact remains that the Hospital Saturday Fund was established, and is being supported by the public for the purpose of assisting destitute persons to obtain hospital treatment, and not for the assistance of those well able to pay for their own treatment, either by their medical adviser or through their clubs. Even supposing, therefore, that the funds obtained from "industrial" subscriptions be ample for the purpose of guaranteeing payment to the hospitals for "industrial" contributors, the main point of our argument remains—that medical men should not be asked to give gratuitous services for persons who can pay for themselves. The whole question is rapidly becoming a serious one for the profession, and we earnestly commend it to the consideration of the New South Wales Branch of the British Medical Association. In a future article we shall have some observations to make upon this fund from other aspects.

A SUSPECTED CASE OF PLAGUE.

WITH respect to the recently reported case of plague we are able to make the following statement from information courteously supplied by the Board of Health. The patient, a young man of 25 years of age, was a line repairer in the employment of the Railway Commissioners. During the month of July and up to August 3rd he was working at Gosford and Pymble, visiting Sydney only at week-ends. On Saturday, August 3rd, he came to his usual lodgings in town, being then in apparently perfect health. On Sunday 4th instant, he fell suddenly sick, became rapidly worse and died on the morning of Monday 5th instant. He was not attended by a medical man and no definite history of his illness is available. The death was reported to the Coroner, and the medical inspection suggested the need for *post-mortem* examination. This revealed mainly petechial hæmorrhages under the skin of the trunk and especially in the axillæ, extreme congestion of the viscera with hæmorrhages in the pericardium, lungs, liver, and intestines. The axillary glands on both sides were swollen and showed deep purple congestion of the cortical areas, but there was no periadenitic hæmorrhage or œdema. All other lymphatic glands normal. There were no other important pathological signs. The *post-mortem* indications were consequently that the patient had died of septicæmia; with a suggestion of plague. Microscopical examination of the swollen glands, spleen, and other viscera; cultures from the organs and inoculation experiments in animals all failed to reveal plague bacilli. Pending the result of these investigations precautionary measures of quarantine were taken. The exact nature of the illness causing death has not been ascertained, but it was presumably some virulent infection of a septic character acquired through wounds which were present on both hands. The satisfactory issue so far as the negation of plague is concerned is a matter for congratulation, and we are glad to learn from the Health Department that no case in this city even suspicious of plague has come under their notice for the past twelve months.

TENDERS will be received by the undersigned from Legally Qualified Medical Practitioners for the position of Resident Medical Man at Gulargambone. Applicants to state the amount they would require for a bonus. Tenders close on 7th September, 1901. Further particulars can be obtained from the undersigned.—**E. E. BUTTSWORTH**, Gulargambone, *via* Dubbo.

HOSPITAL ABUSE.

"In the way of argument, look you, and friendly communication."
—*Henry V.*

THE question of hospital abuse has again come into prominence It is a burning argument, now flaming forth, and now smouldering, but ever recurring, like the stubborn fact it is. At the present time it is coupled with an unfavourable criticism of the conduct of certain honorary surgeons, who appear to have been in the habit of receiving fees from inmates of the institutions which, nominally at least, they are supposed to serve without material fee or reward.

As to the *paying patients*, we believe that among medical men a universal feeling prevails that the best form of public hospital should not entertain them, and that only the patient who is poor and indigent can rightly be looked on as a worthy recipient. Doubtless, to reduce the test for admission to this simple standard, would be a very desirable conclusion. But the time has not yet arrived, though much in that direction has been and may still be done.

The case of the honorary surgeon who receives fees is a matter that can be considered in itself, as it is not inseparably connected with the abuses just mentioned. These officials are regarded by their fellows with very mingled feelings. Many hold that they are Laodiceans of an undesirable type, and that the orthodox treatment of such doubtful persons is distinctly indicated in their case. The honorary surgeons found fault with are not inclined to strongly defend their questionable position. At the best they only contend that their warrant lies in the fact that they form a part of an important phase of benevolent work. Of that phase they were not the designers, and they do not feel called upon to be its destroyers. Between these two points of view are others that need not be here enlarged on. What we desire to suggest is that a judicious exchange of opinion among confreres would very likely bring about a better understanding in this matter than any amount of acrimonious discussion. Not first wholesale condemnation, and then proposals for a *rapprochement*—such a course is irritating and likely to defeat its own end. Rather let a small committee, from the hospitals and the profession, jointly consider the facts in conference, and then proceed to such further action as may in the light of these facts appear desirable.

A TOUTING OPTICIAN.

THE following circular has been forwarded to us by the Hon. Sec. of the Queensland Branch:—

"(Memorandum to Dr. A. E. SHEAF, Roma).

"Dear Sir,—In forwarding you one of my pamphlets, I have the honor to draw your attention to the fact that I am the only Certificated Optician, by examination, practising in Queensland, as the facsimile of my certificate in pamphlet will show. My consulting rooms, at —— Street, Brisbane, are fitted up with all the latest and most modern instruments and appliances relative to opthalmic (*sic*) science for the testing and correction of the eyesight.

"My workshops are also fitted up with the latest and improved machinery for the manufacture of every discription of lense (*sic*).

"Should you in your professional capacity **refer any of your patients to me for the purpose of correcting the defects of the eyesight, I shall be pleased to negotiate with you for the purpose of allowing you a reasonable commission in connection therewith.**"

We understand that copies of this circular have been freely circulated amongst medical men in Queensland. We have no doubt but that such a flagrant insult to the profession in Queensland will have a very different effect from that expected by the sender. The author of this circular was granted permission by the Secretary for Education of Queensland to examine the eyes of the children attending the State schools, but withdrew from the undertaking in consequence of the opposition of the Medical Profession.

THE INTERCOLONIAL MEDICAL CONGRESS OF AUSTRALASIA.

THE Sixth Intercolonial (Inter-State) Medical Congress of Australasia, will begin at Hobart, on Monday, February 17th next, 1902; and, continuing through the week, terminate on Saturday, February 22nd. One of the most interesting features will be a general discussion on cancer.

A motion will also be moved for the purpose of forming an Australasian Medical Association with a prominent council. The title of the Congress, moreover, will necessarily have to be altered in accordance with the accomplishment of Federation—the present designation of "Intercolonial" being no longer admissable.

The return fare from Sydney to Hobart by the Union Steamship Company is £4. On this amount an abatement of 10 per cent. will be conceded to members.

New South Wales country members, residing not less than twenty-five miles from Sydney, will be allowed to travel to and from Sydney or Melbourne at single fares for the double journey. This concession will, in addition, be extended to *one* near female relative, wife, mother, daughter, or sister.

LETTER FROM DR. GREGORY SPROTT, GENERAL SECRETARY SIXTH (HOBART) INTERCOLONIAL MEDICAL CONGRESS.

"Hobart,
"July 22nd, 1901

"DEAR SIR.—The Executive Committee of the Intercolonial Medical Congress is of opinion that the time is opportune for the 'Intercolonial' Medical Congress to give place to a more prominent and representative association.

"The Committee is of opinion that an Australian Medical Association should be formed on the lines of the British Medical Association. The Committee has determined to lay a draft of the scheme they propose before Congress, at its next meeting; and, in order to make the details of the proposed scheme as complete as possible, the Committee would like to have the opinion and suggestions of representatives of the different medical associations in your State.

"Will you kindly take the necessary steps to bring this letter before the Medical Societies, with a request that they will favour us with a reply, and any remarks they would like to make,

"Yours faithfully,
"GREGORY SPROTT,
"General Secretary."

The Editor,
The Australasian Medical Gazette.

LETTERS TO THE EDITOR.

CLIMATIC TREATMENT OF CONSUMPTION.

(*To the Editor of the Australasian Medical Gazette*).

SIR,—Illness prevented me from attending the July meeting of the New South Wales Branch of the British Medical Association, when Dr. Camac Wilkinson read a paper on the "The Climate of the Coast of New South Wales in relation to Pulmonary Tuberculosis."

By your courtesy in permitting me to read a proof copy of the paper, I am enabled to make a few comments upon it—a more lengthened criticism must be postponed until a future occasion.

The gist of Dr. Wilkinson's argument is, to quote his own words "that the air of the sea coast of New South Wales, far from being injurious to those suffering from pulmonary tuberculosis, is beneficial, and may have as much curative virtue as any other climate in the world." It is well-known that the great majority of the profession in New South Wales holds a diametrically opposite opinion. Dr. Wilkinson thinks that he proves his thesis by showing that the mortality from phthisis is lower in some of the coastal than it is in some of the inland districts. He sneers at those "special pleaders" as he calls them who assert that the relatively high mortality in some of the inland districts is due to the fact that those who contract consumption in the coastal districts finding themselves going from bad to worse, either on the advice of their doctor or on their own motion, seek (unhappily too late) the dry and light air of the mountains or inland plains and die there. That in my opinion, and in that of many others competent to judge, is the explanation. But, Sir, what we want to know is, not how many persons have died of consumption in the coastal and inland districts respectively, but where those persons contracted the disease, and where they resided during its progress. The result of such an investigation would, I feel sure, demonstrate the truth of the above-mentioned explanation.

Further, it is well-known to all who have had large experience in phthisical cases that it is on the highlands and inland plains of New South Wales that the great majority of cases of arrest of consumption have taken place. Dr. Wilkinson chooses to ignore the experience of others in this matter, but the positive knowledge which they possess is of far more value than any of the figures which he has quoted. There is another consideration which would convince most people of the superiority of the mountain and inland air for consumptive patients. It is this. We all experience a feeling of languor and weakness on the seaboard during the hot, steamy summer season, and most of us (even, I believe, Dr. Wilkinson) seek the mountain air, and are conscious of the invigoration which we derive from it. If we who are in health feel the necessity of seeking the change of air, how much more must it be needful to those who are weakened by tubercular disease?

Dr. Wilkinson seeks to belittle the beneficial influence of high altitudes by quoting Sir Hermann Weber, who is a well-known advocate of mountain air in the treatment of consumption. But, Sir, in the passage referred to, Sir H. Weber is simply insisting upon the necessity of treatment in a sanatorium, especially in the case of the poor, and saying what we all recognise, that climate is not the only factor required in the treatment of consumption, but that abundant nourishment, rest, regulated exercise, and close medical supervision are also needful.

Dr. Wilkinson quotes also Drs. Dettweiller and Turban in support of his view, that mountain air is not essential, but he forgets that these gentlemen are speaking of the Continent of Europe. We have to do with a climate of a very different character. Moreover it is significant that the great majority of the sanatoria for consumptives on the Continent of Europe, including Dr. Dettweiller's and Dr. Turban's own institutions, and all in America, are situated at more than 1,300 feet above sea level. Some are as high as 4,000 feet. In England, it is true, that the sanatoria are not at high levels, but for the very good reason that high altitudes are not to be found.

I am, Sir,
P. SYDNEY JONES.

"A CRITICISM OF RUSSELL'S OPERATION FOR HERNIA."

(*To the Editor of the Australasian Medical Gazette.*)

Dear Sir,—My attention has been attracted by an article in your July issue, under the above heading, by Dr. Charles MacLaurin, of Sydney. The criticism purports to be based on a paper read by me before the Brisbane Congress, in 1899, and another published in the *Lancet* last November.

Dr. MacLaurin, speaking of the former of the two papers, very politely commences by a tribute to the clearness of the language which characterises it, and he then proceeds, at considerable length, to shew that he has failed to understand a single word of it. The truth of this statement will be evident to anyone who cares to read what I have written, but courtesy seems to require that I should point out a few of Dr. MacLaurin's errors in some detail. I wish it to be understood, however, that I do not pretend to be answering his paper; for an answer to it I need only refer him again to the papers I have already written. If he will kindly read them through with reasonable care, so as to gather their import, he will find his criticism of them completely answered.

To begin literally at the beginning, Dr. MacLaurin betrays himself by the title he gives to his paper. May I ask what "Russell's Operation for Hernia" is? I was not aware of the existence of such a thing. Surely if there is one thing more clear than another it is that my poor efforts have been devoted to establishing sound principles for our guidance in the treatment of hernia as directly opposed to any particular operation, for of such we have already far too many. It is true that I described, incidentally, the way I am in the habit of removing the sac in children, but I expressly state that this is not the method I follow or consider appropriate under various other conditions, so that it can hardly be called correctly an "operation for hernia." Then Dr. MacLaurin opens his attack thus:—"Briefly stated his (R.H.R's) argument is as follows:—All inguinal herniæ in the young are due to the presence of a patent funicular process of peritoneum. Without this there can be no oblique hernia." Now, if he will kindly read the Brisbane paper he will find there only one case of hernia recorded in detail, because it supported my contention with unique and special force. It is expressly stated that in this case the sac was *not* formed by any portion of the funicular process. Again, "Although Russell dismisses summarily the argument that in hernia the sphincter is stretched and degenerate and loses it power, yet, none the less, the argument has great weight." Would Dr. MacLaurin say *where* I dismiss this argument summarily. So far from this being the case I have consistently placed it in the very fore-front of my arguments. It is one of the fundamental standpoints of my plea for operation as opposed to treatment by truss.

These two instances of striking inaccuracy are by no means isolated, but I have no wish to pursue the matter further. I cannot refrain, however, from calling attention to the following example of Dr. MacLaurin's curious method (p. 284, second column, paragraphs one and two). Here he takes an argument of mine, and quotes it so inaccurately as to make it mean something else. Then he "re-casts" his inaccurate quotation so as to make it mean something different from either my argument or his misconception of it, and finally he deduces from what he is pleased to call "these premises" a conclusion that has no relevancy either to my original argument or to his misconception of it, or to its third and last appearance in the guise in which it has been tricked out by the aid of his peculiar logic. This and the inconsequent and irrelevant matter that follows, serve as a sort of preliminary training for the funny paragraph about natural selection and the internal ring; but even after that, one's equanimity is somewhat severely strained, on making the discovery near the end of the paper that when Dr. MacLaurin is enunciating his recondite views about the internal ring we are expected to understand that he does not mean the internal ring at all, but something entirely different. My critic's anatomy, like his logic, is a little disconcerting.

I am, etc.,
R. HAMILTON RUSSELL.
Melbourne, August 5th, 1901.

FEES TO HONORARY MEDICAL OFFICERS OF HOSPITALS.

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(*To the Editor of the Australasian Medical Gazette.*)

SIR,—It is very disappointing that the question *re* the receiving of payment by so-called *honorary* medical officers for operating, etc., on patients in private wards at certain of our Metropolitan Hospitals has been shelved.

Since many of the honorary officers at those hospitals individually express themselves as being averse to the practice, and think, with the majority, that the system is a pernicious one and absolutely wrong, why do the hon. officers of these hospitals not hold a meeting, and collectively decide that they will refuse to continue the practice of treating patients in private wards within a hospital and receive fees for the same. Surely they can rest assured that should the authorities governing these hospitals see fit to call upon them to resign their positions, that these positions would certainly not be taken by any reputable medical men. It does seem strange that younger members of the profession are called upon to uphold the dignity of the profession, and to refuse to stoop to any pernicious practices with regard to friendly societies, and are strictly advised not to do anything contrary to medical ethics, and they willingly do so, and have done so quite recently, even at a sacrifice to themselves; and yet, forsooth, old established practitioners, and, presumably, reputable and leading men in the profession—or men who like to be deemed so, and consider themselves such—have held so-called honorary positions for years, and draw fees regularly for treating patients in private wards within a hospital (such private wards being built and maintained by private subscriptions and occasional help of Government grants, and competing with private hospitals outside, managed legitimately by trained nurses); and then, when these reputable and independent medical gentlemen think it possible that a majority of the profession may decide against this practice, they send forth clarions to declare that should such a decision be arrived at, they will sever their connection with the British Medical Association. Can you imagine a greater inconsistency, or a more deplorable condition among certain members of our profession, evidently all for the sake of the "bawbees"? Trusting that the honorary staffs of those hospitals in dispute may see their way to act consistently, and not prejudicially in the interests of the unity of the profession.

I remain,
Yours, etc.,
A MEMBER OF THE B.M.A.

July 16th, 1901.

THE RESIGNATION OF MEDICAL OFFICERS TO THE MANCHESTER UNITY LODGES.

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(*To the Editor of the Australasian Medical Gazette.*)

SIR,—The letter of "Disgusted" in your last issue raises the question as to whether the medical practitioners who have resigned these positions should be allowed to suffer pecuniarily by the sacrifice which they have made for the good of the profession. Personally I consider they should not, and though a non-resident of the New South Wales State, would be willing to contribute my small mite towards a fund raised for the purpose of recouping these gentlemen, as I hold the profession generally is under a debt to them. Now that the progress of medical reform has received such a check, may I be allowed to suggest to the New South Wales authorities that an indemnity fund be started before other men are asked to give up their appointments. We cannot expect to find another four ready to sacrifice themselves as these men have done, and though here and there there may be such another individual as Dr. Manly—who, after holding it for four days, gave up his lodge appointment at Shepparton, Victoria, on learning the true state of affairs—still it is useless to hope that these examples will always be followed. If every medico would contribute a sum of not less than 10s. 6d., such a fund could be raised as to quite do away with any fear of pecuniary loss to those resigning their positions, and thus one of the greatest obstacles to the unity of the profession would be removed. Such indemnity funds have been started in connection with the Durham Medical Union, and in other parts of England, where endeavours are being made to raise the price of medical contract work.

I regret that "Disgusted" has not gone further in his letter than merely state that one individual "has sacrificed the good will of his medical brethren by his action towards three of his fellow practitioners." For the benefit of practitioners who, like myself, do not live in the metropolis, I consider his name should have been mentioned, so that in the future we would know in what esteem to hold him, and as "Disgusted" has not done it, I suggest, sir, that you yourself should oblige us by supplying the omission.

Yours, etc.,
ABOU BEN ADHEM.

August 5th, 1901.

A METHOD OF VACCINATION.

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(*To the Editor of the Australasian Medical Gazette.*)

DEAR SIR,—There appears to be some diversity of opinion as to what is the best method of vaccinating. In describing the plan I have made use of for a good many years, with what I believe to be favourable results, I do not wish to suggest that there may not be others quite as good. Neither do I know whether it be anything new. But to me it appears to possess certain advantages which I will point out briefly. After satisfying myself sufficiently that the child to be vaccinated is not suffering from any ailment or cutaneous eruption, I bare the arm up to the shoulder. A weak solution of lysol, or a lather of Kapp's soap and water, is gently rubbed on the elected spot for some minutes with a piece of surgeon's cotton wool. With a second piece of wool the place is dried. A third piece of wool is then applied, and held in position by the person in charge of the child till I am ready to vaccinate.

I then pass the blade of my lancet into a spirit-lamp flame, and allow it to become red-hot, if necessary. It has already been "stropped" until it has a razor edge. I then "anneal" it by plunging it into a 1 in 20 solution of carbolic acid (not lysol, which will encrust the blade), and this will dry off (if the knife be not too long immersed) in a few seconds, leaving a good "temper" in the steel, and not altering the keenness of its edge. A drop of vaccine lymph (glycerinated calf) is then placed on the edge of the lancet by heating the closed end of the lymph tube and applying the open end to the blade.

Having removed the pad of wool from the child's arm so as not to handle the skin or touch the under-surface of the pad, I draw the edge of the lancet several (four or more) times across the arm for about half an inch, the little incisions being at intervals of a line or so. The cotton wool is then replaced, and a "vaccination shield" ordered. This latter should be made of padded wire, not collapsible material, and the attendant is warned to tie two strings round the neck loosely and two round the arm. Mothers who try tying all four tapes round the arm complain that the shields "will not stay on."

I find this method of vaccinating good for the following reasons:—(1) It is simple, and can, with very little management, be carried out without frightening the child and causing it to struggle, and, in doing so, to contaminate the wound. (2) It combines, I venture to think, the essentials of an "aseptic" operation, if one may so speak of any inoculation. (3) It necessitates the use of no instruments that are difficult to keep clean. (4) It certainly fulfils the requirements of effective vaccination in so far as "four or more" incisions are made and each charged with lymph. I admit that the resulting pustules frequently coalesce, but I cannot say that I perceive the special virtue attributed to "four *separate* marks," provided that a sufficient quantity of the lymph is introduced in all cases. (5) By repeating the heating and tempering process between each operation, any number of children may be vaccinated successively without leaving room for any suspicion that "something else" has been conveyed from one child to another.

I may add that the knife I find most handy for the purpose is an ordinary "Beer's" cataract knife, and that I rarely have to touch the child's arm, and often get through the whole process while it is asleep. The added advantage of not having a surgery full of infants "in full cry" is of no scientific value, but not to be entirely despised on that account.

The whole method may be capable of improvements. I should be glad to hear of any that might suggest themselves to your readers. In conclusion, I may remark that I always endeavour to induce parents to secure calf lymph (as provided by the Vaccine Office). Why vaccinators are obliged to "furnish one tube of humanised lymph for each child vaccinated," and what the authorities do with the enormous store that must have accumulated I can not pretend to guess.

I am, Sir,
Yours, etc.,
C. H. SOUTER.

Balaklava, S.A.,
29th July, 1901.

HOSPITAL ABUSE.

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(To the Editor of the Australasian Medical Gazette.)

Sir,—It having been my misfortune to have obtained the position of Medical Officer to the Wiluna Hospital, W.A., through an agent in Sydney, for which I was charged the sum of £15, and which appointment was untenable, unless there was a balance on the wrong side. My resignation was sent in, the expenses of living being exorbitant and no income from private practice to meet them. The resignation was duly accepted by the committee who actually made a private patient, (who was suffering from the effects of a pugilistic encounter, viz, fractured jaw and other contusions) a hospital inmate. It should be observed that this man earns good wages, has landed and house property, as well as interests in mines. This thoroughly bears out statements in Mr. Bruck's pamphlet.

Yours etc.,
W.H., J.P.

THE AUSTRALIAN NATIVES' ASSOCIATION.

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(To the Editor of the Australasian Medical Gazette.)

Sir,—The true inwardness of this much-puffed institution can be gauged from the threat of the president to introduce legislation to compel medical "unionists" to work with "free labourers." It shows how hollow all their boasted patriotism is when they make such a threat in a community which probably possesses a larger number of unionists than any other part of the world. If the Australian Natives' Association proposed to compel the Sydney "Union" ironworkers to work with "free labourers," what a howl of execration there would be.

I am sorry to find that a few New South Wales Medical men are so foolish as to have anything whatever to do with it. If it is not nipped in the bud in New South Wales, the profession will become simply one joint in the tail of this many-jointed monstrosity, as it has done in Victoria. There it is simply a curse to the medical profession. Some time ago they attempted to start a Medical Institute at Brunswick, ostensibly to get better treatment, really to reduce their medical bills from the modest sum of 13s. per family per annum to the still more modest one of about 10s. per annum.

This failed, but they are now actively engaged in trying to start similar institutes at Port Melbourne and Fitzroy. In the latter place they pay the paltry sum of 12s. 6d. per annum, while Foresters, at whom they turn up their superior noses, pay 15s. But they consider 12s. 6d. too much, and so wish for an institute.

One medical man had two interesting Australian Natives' Association experiences. When asked late one evening to go and see a sick child, he ascertained from the messenger (the father) that there was not really very much wrong, so he wrote a prescription and promised to call in the morning. The father went away satisfied, but the mother sent for another doctor, and the next thing the "lodge" doctor heard about it was a demand for payment of the other doctor's account, and the lodge ordered him to pay half of it. Again, when asked to attend a fortnight old Australian Natives' Association infant, brought into the world by a non-lodge doctor, he mildly suggested that the distinguished accoucheur should be asked to attend, explaining that it was customary to ask the lodge doctor to act as accoucheur. The father, to soothe his ruffled feelings, asked him to attend and promised to pay him private fees, but when he sent in his account it was repudiated by the member—a well-paid public servant—and he was backed up by the rulers of this great national and patriotic association!

Not long ago this interesting combination of economy and alleged patriotism offered highly trained medical women *a whole eighteen-pence* for attendance on all the female members of their family for one year. The medical women did what New South Wales doctors ought to do, treated them with the contempt they deserved.

This society is particularly objectionable (1) because it is a fraud, pretending to be a great national and patriotic association, whereas its real aim is to get a doctor's services for a shilling a visit, and medicine at sixpence a bottle—tooth extractions being thrown in. (2) As a Medical Aid Association, it is the most objectionable in Australia. (*a*) Because it systematically touts and canvasses for people who are ordinarily private patients. (*b*) Because of the intolerable bumptiousness and patronising airs of its members. The efforts of the frog to pose as an ox were not half as ridiculous as are the absurd attempts of this medical sweating institution—our worst enemy in Australia—to pose as a great national and patriotic institution. From all such "patriotism," good Lord, deliver us.

Yours, etc.,
ANTI-HUMBUG.

July 10th, 1901.

MEDICAL ABUSES IN QUEENSLAND.

(To the Editor of the Australasian Medical Gazette.)

DEAR SIR,—Whilst the medical profession in New South Wales are trying to do something towards decreasing the abuses to which we are subject, in Queensland, where they appear much greater, nothing seems to be attempted. Here in the country towns abuses are carried to extremes. In the town in which I am practising—and this seems to be a fair sample of most of the country towns—we have a fairly well appointed hospital, and a Friendly Society. They elect one man to the hospital and another to the society, both with the option of private practice if he can get any. I say "if he can get any" with reason, because everybody who is worth anything in the town, including the bank managers, solicitors, hotel keepers, large and small storekeepers, etc., belong to one or other lodge included in the society. In fact, perhaps the only people in the town who don't belong to lodges are the poorer people, for whom lodges are intended. But the abuse does not end here, because the hospital rules are so fixed that anyone can come and demand admission if he is willing to pay four shillings a day, no matter how rich he may be. Then the hospital authorities have a system of giving an order for admission to anybody who pays ten shillings, and the holder of this order can also demand admission even if he is worth thousands. Also the people here have so little idea of paying medical fees that storekeepers and people in a large way, some perhaps who are not satisfied with the treatment received from their lodge doctor come to the hospital to be treated as out-patients. I have refused to treat as many as three or four a week of these people, determining to take a stand here at least. The only chance one has to earn anything like a living is by treating the people in the district outside the town, and of these a large proportion have the ten shillings order, and the rest when sick enough to go to bed come to the hospital and occupy the private ward and are thus lost to the doctor, as he is not allowed to charge private patients. Trusting soon to see the medical profession united enough to put an end to these abuses.

I remain,
Yours faithfully,
A NEW ARRIVAL IN QUEENSLAND.

A LODGE CONTRACT.

(To the Editor of the Australasian Medical Gazette.)

DEAR SIR,—The enclosed agreement was sent to one of our members for signature. There is no need for me to comment on it, it speaks for itself. My Council think it should be published in *The Australasian Medical Gazette* to show medical men in various parts of Australia what the lodges are beginning to expect. I am sorry to say I have been informed that two medical men saw fit to sign it.

Faithfully yours,
W. B. VANCE, Hon. Sec.
Victorian Branch of the British Medical Association.

Memorandum of Agreement made this day of July, one thousand nine hundred, between R. E. W——, physician, of the one part, and the officers for the members of the Loyal Prince of Wales Lodge, M.U.I.O.O.F., South Melbourne District, the other part.

1. Whereas the said R. E. W—— agrees with the members of the said Lodge, through their officers, to act as surgeon and medical adviser to them and their families to the age of eighteen years, also widowed mothers of members, if residing with members, for the term of six months, commencing on the first day of July, one thousand nine hundred, exclusive of medicines, and also to accept and abide by the bye-laws of the said Lodge, district, and the following conditions:—

2. Should a member fail to secure the services of the medical officer or a duly qualified substitute appointed by him at the hours stated, the member shall be empowered to employ any other legally qualified medical practitioner, the aforesaid R. E. W—— being liable for all expenses incurred in obtaining such medical advice or services.

3. That the sum paid by the Lodge shall be sixteen shillings per member per annum, paid quarterly.

4. To attend all sick members and their families whose residence does not exceed three miles from the lodge room.

5. That if upon receiving notice at his residence to attend a member and find that he cannot do so at once, or within two hours at the furthest, he shall send a substitute immediately, or be fined the sum of seven shillings and sixpence, or such sum as the medical committee of the Lodge may direct.

6. He shall furnish a fortnightly report on the state of the sick on his list or be fined five shillings for each and every neglect.

7. In case either party shall be desirous of terminating this agreement, three months' notice thereof shall be given in writing. Providing that should no notice be given by contracting parties on either side previous to the half-yearly summoned meeting of the Lodge, the above agreement shall hold good until such time as the same shall be annulled under the above conditions.

8. This is to certify that in compliance with the terms and conditions above mentioned, we have hereunto affixed our names and the seal of the Lodge on the day and date above mentioned.

MEDICAL NOTES.

THE Medical Defence Society of Queensland, whose objects are similar to those of the Medical Defence Unions of England and the Medical Defence Association of Victoria, has just been established in Brisbane. It is intended that meetings shall be held quarterly for the discussion of questions of ethical and general interest, reports of which will appear in the *Australasian Medical Gazette*. The first annual meeting will be held on Friday, September 20th, at which nominations will be received for officers to be appointed at the annual meeting in January, 1902. The liability of members is limited to one pound. The Hon. Secretary is Dr. A. B. Brockway, 51 Wickham Terrace, Brisbane, from whom all particulars may be obtained.

It is reported that the German farmers at Walla Walla, having tried in vain to get a resident medical man, appealed direct to the German Emperor, and have received an intimation through the German Consul that a practitioner has been selected in Germany. Walla Walla is a very small district in New South Wales, about 366 miles S.W. of Sydney.

BRITISH MEDICAL ASSOCIATION.

NEW SOUTH WALES BRANCH.

A General Meeting of this Branch will be held at the Royal Society's House, Elizabeth Street, Sydney, on Friday, 30th August, at 8.15 p.m.

Business:—Election of Editor of the *A. M. Gazette*, and General.

G. T. HANKINS, Hon. Secretary.

METROPOLITAN (SYDNEY) COMBINED SANITARY DISTRICTS.

Third Annual Report of the Medical Officer of Health, for the Year 1900.

By W. G. Armstrong, B.A., M.B. Ch.M. Syd., D.P.H. Camb.

[Abstract.]

The year will be always a marked one in the sanitary history of the metropolis for several reasons. The fatal and deplorable invasion of Sydney by the bubonic plague, the resumption by the State Government of certain slum areas, and the amendment of the Corporation Act of the City of Sydney in some most important directions, stamp the year as one to be remembered. Terrible as the epidemic of the plague was, with its record of 103 deaths, and its heavy account of money expenditure and damage to trade, it has not been without signal uses.

The estimated mean population of the metropolis for the year 1900 was 436,500.

The births for the year numbered 12,127, and yield a birth-rate of 27·78 per 1,000 of population.

The actual number of deaths registered within the metropolis during the year totalled 5,502. On applying to this number certain proper corrections, by subtracting from it the deaths of persons domiciled in other districts who died in Sydney (mainly in hospitals and other public institutions), and adding to it such Sydney residents as died in other districts, the number so corrected becomes 5,409, being at the rate of 12·39 for every 1,000 persons living.

This death rate is exactly the same as that for the year 1899, and is, notwithstanding the epidemic of plague and an increase in the deaths from typhoid fever and diarrhœa, one of the lowest ever recorded in the metropolis.

Compared with the other great cities of the world, our general death rate is a very low one and quite bears out the popular estimation of Sydney as being an extremely healthy city, as indeed its position and climate would lead us to expect. Unfortunately, the same statement is not true of the death-rates from typhoid fever and diarrhœa, two diseases which are rightly regarded as being beyond almost any others the indicators of the sanitary conditions of a town. Both these rates are high in Sydney, and have long been so, though of late years they have fortunately shown a tendency to decline.

One of the most satisfactory facts about the statistical information of the year is the substantial fall in the infantile mortality rate. This was at the rate of 115 deaths to every 1,000 births in 1900, while in the previous year the infantile mortality rate was 120 per 1,000 births.

The death-rate from scarlet fever in 1900 is the lowest ever recorded in the metropolis. Only five deaths were registered from this cause, yielding a rate of just over ·01 per 1,000 living. As 464 cases of sickness from this fever were notified during the year, it follows that the case fatality or percentage proportion of deaths to cases of sickness was only 1·08 per cent., a very low percentage indeed when we consider that the case fatality in Europe is stated to range from 3 to 10 per cent. The notification of infectious diseases which was first enforced in New South Wales, three years ago, cannot be without a very marked effect on the spread of scarlatina. It is true that disinfection of dwellings is generally neglected throughout the metropolis, and hospital isolation is a negligible quantity. Out of 464 cases in the metropolis in 1900, only 110 were removed to hospital for treatment. Nevertheless, the influence of school infection is a highly important factor in the spread of scarlet fever, as of diphtheria, and this element has been eliminated by the provisions of our Public Health Act, which forbid the return to school of children for two months after recovery from any notifiable infectious disease, unless on the certificate of a medical practitioner. Previously to the enforcement of this Act, it was quite a common occurrence for children to return to the public schools after an attack of scarlet fever long before desquamation was completed. This abominable practice was the cause of the spread of many epidemics.

The notifications of diphtheria received from the metropolis totalled 278, or 7 less than in 1899. There was, however, an increase in the number of fatal cases from 14 in 1899 to 21 in 1900. The latter number yields a death-rate on the population of ·048 per 1,000 living, and a fatality rate or percentage of deaths in relation to cases of sickness of 7·5 per cent. One hundred cases, or only a little over one-third of the total number notified, were treated in hospitals. Among these there were 12 deaths, yielding a case fatality on the number treated of 12 per cent. Although the death-rate from diphtheria is somewhat higher than that of 1899, it is far lower than that recorded in Sydney for any previous year. The nearest approach to it was in 1881, when a death-rate of ·08 per 1,000 living was recorded.

During the year 983 cases of typhoid fever were notified from the metropolis, and 1,047 from the whole of the metropolitan combined districts. These figures show a considerable excess over those of 1899 (786 in the metropolis proper and 837 in the combined districts). The increase was not confined to any particular district, for though the city of Sydney and the borough of the Glebe bulk most largely in it, very few municipalities failed to participate. Notable exceptions to this statement are :—Annandale, 37 cases in 1899 and 22 in 1900 ; Canterbury, 20 cases in 1899 and 6 in 1900 ; Petersham, 38 in 1899 and 19 in 1900 ; and Randwick, 28 in 1899 and 15 in 1900. Of the 983 cases notified from the metropolis, 510, or 53 per cent. of the total, were males, while 473, or 47 per cent., were females. Deaths numbered 103 in the metropolis, yielding a death-rate of ·23 per 1,000 living, and a case fatality of 10·48 per cent. on the known cases of sickness.

As regards the seasonal incidence of the disease, the numbers of notification received each month were :—January, 184 ; February, 182 ; March, 152 ; April, 98 ; May, 64 ; June, 33 ; July, 33 ; August, 15 ; September, 5 ; October, 24 ; November, 66 ; December, 127 ; total, 983. It will be observed that the seasonable prevalence differed considerably from that noticed in 1899, in which year the maximum number of cases happened in March and the minimum in October.

As regards the sanitary conditions prevalent in dwellings from which typhoid was notified, 574 cases came from dwellings connected with the public sewers, 376 from dwellings served by pail closets, and 33 from dwellings served with cesspits. The mean number of houses in the metropolis connected with the sewers and served by water-closets during 1900 was 65,760. The mean number served by pail closets was 27,265, and the mean number served by cesspits 1,016. From these figures it appears that 1 case of typhoid occurred in 114 sewered dwellings, 1 in 72 dwellings with pail closets, and 1 in 31 dwellings having cesspits. The figures are relatively very approximate to those of the previous year. Of dwellings which furnished more than one case of typhoid fever a piece there were 59. From 42 of these, 2 cases each were notified; from 13, 3 cases each were notified. In 1 dwelling 4 cases occurred, and in another 6 cases. Of the dwellings which furnished 2 cases each 16 were connected with the sewers, 25 were served by pail closets, and one by cesspits. Of those which furnished 3 cases, 7 were connected with the sewers, 3 were served by pail closets and one by cesspit. The dwelling which yielded 4 cases was connected with the sewers, and that which yielded 6 cases was served by a pail closet.

The districts in the metropolis showing the worst record, as regards typhoid fever, were Botany and St. Peters. Both these municipalities have for many years been notorious for insanitary conditions; and in 1899 Botany had the worst record for typhoid in the metropolis. As might be expected, the same two boroughs had more deaths from diarrhœa relatively to their population than any other districts. Typhoid fever and diarrhœal diseases usually march abreast in the track of bad sanitation. The attack rate from typhoid fever in the metropolis as a whole (2·2 per 1,000 of the population), is a high one compared with the similar rate of large towns in England—those at least in which the most enlightened and scientific sanitary administration has been attained to. This fact is the more salient because the general death-rate, and with the exception of the rate from diarrhœa, most of the rates from other important diseases are lower than they are in Britain. Moreover, it is a striking fact that since the enforcement of compulsory notification very few outbreaks of typhoid in Sydney have been traced to the water supply, the milk supply, shell-fish, or other common sources of food supply. It is well known that in England at least 50 per cent. of cases of typhoid fever may be attributed more or less directly to the pollution of water or milk supplies and the infection of those shell-fish which are ordinarily eaten raw. The question naturally folllows: What is the usual source of infection in this metropolis, and why does it differ from that in England? In my opinion, the answer is furnished by the difference of the climatic conditions which prevail in this country, which are peculiarly adapted towards the spread of typhoid fever along other lines than those time-honored ones of which I have spoken. The infinitely greater dryness of our climate over that of any part of England, and the singular dustiness of Sydney as a city are, I take it, the cause of much of the typhoid fever which occurs here. The upper layers of the soil in back yards, which has probably been saturated with all sorts of organic impurities, becomes accidentally infected by the specific organism of typhoid. The first hot wind dries the surface, pulverises it, and carries the dust, to the particles of which the germs of typhoid are clinging, on to any food which it may have access, thus infecting the food in detail. Flies and other insects are probably also frequent carriers of infection

The water supply of Sydney is practically beyond the danger of contamination by typhoid organisms. It is collected on an upland surface without population, and after spending some time in an artificial lake at Prospect, is brought to the city through iron pipes. When the milk supply of a district becomes infected with typhoid, it is nearly always secondarily through the water supply, either through contaminated water being used for the cleansing of the vessels in which the milk is contained, or from wilful adulteration of the milk with such water

The lesson to be drawn from all this is that the cleanliness of private allotments and the scavenging of the streets and open spaces by local authorities should have far more attention than it receives at present. Diarrhœa is another disease which depends upon much the same condition as typhoid, and, like typhoid, it is more prevalent at the end of summer and the beginning of autumn than at other times. Like typhoid, also it is more prevalent in dry dusty, summers than in wet or cool ones. A high death-rate from these diseases is everywhere and rightly regarded as a reproach on the local governing body of the district in which it occurs, because their very existence is a proof that sanitary conditions are defective.

It will not be amiss at this place to devote a few words to the prevalence of typhoid fever in the city of Sydney. The city suffered more from this disease in 1900 than it had done in either of the two previous years, in which the existence of compulsory notification made it possible to ascertain the incidence of the malady. The number of cases notified in the city was 248, of which 22 ended fatally. In 1899 there only 177 cases. The bulk of the increase occurred in the Ultimo district. Cases were distributed throughout the city as follows:—Ultimo, 84; Chippendale, 25; Surry Hills, 24; Darlinghurst, 14; Woolloomooloo, 28; Pyrmont, 22; "The Rocks," 14. In addition to the above, 25 cases were scattered about a district bounded on the north by Margaret and Hunter Streets, on the east by Elizabeth Street, on the south by Hay and Campbell Streets, and on the west by Darling Harbour. Eight cases came from Park Road, and four cases from the neighbourhood of Macquarie Street North. It will be seen from the above list that Ultimo was a heavy contributor to the roll of typhoid, and of the Ultimo cases no less than 72 came from a small area bounded by Bay Street, George Street West, Wattle Street, and Wentworth Park. This area is very low lying, and is probably the most insanitary in the whole of the city. I visited every house in the area from which cases of typhoid were reported, and the impression I obtained from my investigation was that the only satisfactory thing about the district, from the hygienic point of view, was the water supply. The dwellings were generally ill-constructed, and many of them in a dilapidated and even ruinous condition, without proper ventilation, and often very damp from constructive defects and the want of repairs. Yards were badly drained, unpaved, and often filthy. The drainage of the district was extremely unsatisfactory. Old-fashioned sewers discharging into the waters of Blackwattle Bay served and still serve the district. The connections of houses with the sewers were often very defective. Cesspool gullies and untrapped yard gullies were common. A few of the houses were unconnected with the sewers at all, and were served by filthy cesspits. Finally, much of the area is liable to flooding in heavy rainstorms. A marked improvement was effected in the area at the time of the plague epidemic, by the quarantining and cleansing of the worst portions by the Government. Many of the most ruinous dwellings and buildings were demolished, and the whole area cleansed, but there still remains a large amount of work to be done by the sanitary authorities. Probably the district will never be a really healthy one until the low-level system of sewage is completed and connected by a Shone pump with the Bondi outfall sewer. The adjoining portion of the borough of the Glebe was in a very similar sanitary condition to that of the area just described, and typhoid fever was also very prevalent there. With the exception of St. Peters, the borough of the Glebe contains more cesspits than any other portion of the metropolis. All those I have seen are badly constructed and very offensive.

Diarrhœal diseases were more fatal in 1900 than any other group of diseases, and accounted for 611 deaths yielding a death-rate of 1·39 per 1,000 of the population. These figures show an increase over those of 1899, when the number of deaths was 586, and the death rate 1·24 per 1,000. Of the deaths in the year under review 550, or 90 per cent. of the total, occurred in young children under 5 years of age. Diarrhœa is peculiarly fatal to young children in its epidemic form and every summer large numbers of infants are carried off by it.

The deaths from phthisis form a very considerable portion of the total deaths. In 1900 they totalled 445 for the metropolis after distributing deaths in hospitals to their proper districts. This yields a death-rate of 1·02 per 1,000 living, which, on referring to the diagram will be found to be the lowest death-rate ever recorded in Sydney with one exception—that of the year 1897. If all tubercular diseases, including phthisis, tubercular meningitis, tabes mesenterica, and one or two others be grouped together, they will be found to total 556 for the year, with a death-rate of 1·27 per 1,000 living. Since the year 1885 a steady and remarkable decline in the annual death-rate from phthisis and tubercular diseases generally has occurred in Sydney, so that the death-rate now is less than half what it was in the year cited. Nevertheless, 445 deaths is an excessive number, and the phthisis death-rate might be still further reduced. Much is to be done in this direction by prohibiting by law expectoration in public vehicles and streets. Much also may be done by the disinfection of houses after deaths from consumption. Lastly, the education of consumptive persons themselves is of very great importance. They should be taught that consumption is as much an infectious disease as the eruptive fevers, and that it is usually conveyed to the healthy by the dried sputum of the consumptive invalid. To this end a modified form of notification of cases of phthisis would be most valuable. Such notification cannot be made compulsory under the present law, because our Public Health Act only contemplates the notification of acute fevers, which do not make the sufferer infectious to others for more than a few weeks at the outside. They impose disabilities on the notified individual which would be impossible to insist on in the case of a person who, perhaps, remains more or less infectious for two or three years, or even longer, and who, during most of that time, supports himself and perhaps a family by his own exertions. If the notification of phthisis becomes law it should be done by a special enactment, which would not aim at interfering too much in the ordinary life and business of the notified person, but would, nevertheless, inform the health authorities of his condition. The sick person could be instructed by circular or personal explanation of the best way of preventing the spread of infection among others, and in the event of his leaving a house measures could be taken for its disinfection.

A considerable number of deaths from epidemic cerebro-spinal meningitis were registered during the year. In fact, a distinct epidemic existed. At least seventeen deaths from this cause are recorded, and it is quite possible that some of the deaths attributed to simple meningitis should really be debited to the specific disease.

The number of cases from bubonic plague which occurred between January 19th and August 9th was 303, of which 103, or nearly 34 per cent., ended fatally. The epidemic was confined entirely to Sydney and suburbs. Although five cases were diagnosed in country districts, they all occurred in persons who had left Sydney either after their illness had actually begun, or else they were attacked within forty-eight hours after having been in the infected portions of the metropolis. In every case the infection was contracted in Sydney. The first case was that of a carter engaged at one of the wharfs. Dr. Sinclair Gillies, who was called in to attend him, thought the case sufficiently suspicious to notify it to the central health authorities. A thorough clinical and bacteriological examination of the patient led to the public announcement on January 24th that bubonic plague had appeared in Sydney. The announcement was received by the public with incredulity and ridicule. This had been foreseen by the health officials, warned by the experience of other cities. Further cases were anticipated, and measures were taken by the Central Board of Health to create an establishment capable of dealing with an epidemic of considerable extent. The municipal authorities of city of Sydney were officially notified of the occurrence of a case of plague in their district, and advised of the need of extraordinary sanitary precautions. Bubonic plague was proclaimed a notifiable infectious disease under the provisions of the Public Health Act, and medical men were requested to notify all cases direct to the central Health Department. Warnings were issued by the Department as to the important part filled by rats in the propagation of the disease.

During February an unusual mortality was observed among the rats which infested the wharves along the foreshores of Darling Harbour and many of the rats were found on examination by the Government Bacteriologist to have died of plague. On February 24th, the second case among men was discovered in a resident of the wharf at which the greatest mortality had occurred in rats. Thereupon the Board of Health caused the administrative measures previously decided upon to take effect. The Maratime Quarantine Station at North Head, was set apart as a plague hospital and isolation station for contacts. A city depôt as a base for an ambulance service on land, and a launch service by water to the Quarantine Station was established at Woolloomooloo Bay. A visiting medical staff was formed under the leadership of the Medical Officer of Health. Arrangements were made with the police authorities whereby the services of the force were placed at the command of the Health Department for the isolation and guarding of infected dwellings. A disinfecting staff was formed and equipped. Measures were taken for the destruction of rats. A special rat-catching staff was constituted, and, in addition, a capitation fee of 2d., afterwards increased to 6d., for every rat delivered by the public, was paid.

The routine procedure with respect to the removal of patients throughout the epidemic was as follows:—Upon receipt of the notification at the office of the Health Department of a suspected case of plague, one of the visiting medical staff visited the case, and if the diagnosis was confirmed, the nearest police station was communicated with, and the house of the patient was quarantined and guarded. The patient, if not too ill for removal, was conveyed by ambulance to the Woolloomooloo depôt; thence by launch to the Quarantine Hospital at North Head. Another vehicle removed the other occupants of the dwelling. They were also conveyed to North Head to quarters separated from the hospital where they were detained for five days under observation. During this period the disinfecting staff visited the dwelling, thoroughly cleansed and disinfected it by spraying all surfaces with a 1 in 1,000 solution of corrosive sublimate, and removed for passage through the steam disinfecting stove all soiled articles of clothing and bedding used by the patient. At the end of five days the "contacts" returned and the police guard was withdrawn.

About the middle of March it became apparent that the sanitary organisation of the City Council had completely broken down. The condition of dwellings in the districts near the wharves was found to be disgracefully bad, from long continued neglect of the local authority. The Government, in view of these facts, and recognising the urgency of the crisis, and the fact that its importance constituted it a matter for State rather than Municipal management, decided to take over the cleansing of these districts, subdivisions of the infected areas were fenced off and quarantined *seriatim* until by the exertions of large gangs of cleansers and disinfectors, they had been brought into a more satisfactory condition. Advantage was taken of the circumstance to demolish a number of ruinous and dangerous buildings which had long been a menace to the health of their surroundings. Inoculation with Haffkine's prophylactic against plague was offered freely to all those persons who by residence or occupation were most exposed to infection, and over 10,000 availed themselves of the offer and were inoculated by the staff of the Health Department.

Want of space forbids my presenting anything approaching a detailed account of the epidemic. For this I must refer those who are interested to the able and detailed report of the Chief Medical Officer to the Government, which constitutes the most complete account of an epidemic of plague ever published. Conclusions drawn from that report, with which I entirely concur, are:—The disease was not communicated from the sick to the well—was not "catching" in fact; it was not communicated by clothes, household goods, or merchandise; it was preceded and accompanied by an outbreak of plague among rats; it was communicated from rats to human beings, and probably was not contracted by human beings in any other way, at all events in any important degree, the mediums of communication between the rat and human being was probably the flea or other parasite. In support of the statement in the last paragraph several striking facts may be recalled. (1) Plague occurred among rats before it appeared in human beings. (2) Although it spread regularly outwards from the first focus of infection, it did not cross the water; all cases found at North Sydney were contracted in Sydney; the case of the outbreak at Manly was an exception, but here plague infected rats were found on the Manly pier, having crossed the water in the ferry boats, and all cases notified occurred among persons whose close association with the pier was proved. (3) Plague infected rats were found in every neighbourhood in which cases occurred in human beings and dead rats were actually found on premises in which seventy-five of the patients contracted the infection. (4) Plague infected rats were not found in any district which was and remained free from plague among men, though careful search was made for them in all parts of the city and suburbs.

The last case of the epidemic was noticed on 9th August. Since that date not a single case has occurred in New South Wales. The extensive cleansing operations in the infected areas, and above all, the vigorous and effective crusade against rats which has been maintained up to the date of writing this report are undoubtedly to be credited with the abrupt and effectual period put to the epidemic.

During 1900 I addressed to various local authorities 105 formal reports on matter connected with the sanitation of their districts. The subjects dealt with in these reports covered a great variety of subjects. The majority concerned dwelling houses which were in an insanitary state. An immense amount of work in the inspection and presentation to the local authorities for condemnation of dwellings of this class was done during the year. No less than 482 dwellings were visited and reported on by me, and in a majority of cases the improvements demanded have been carried out more or less thoroughly, or the defective dwellings demolished. The only local authority which has taken no action in cases where I have advised the condemnation of dwellings as being injurious to health is Canterbury. I have recommended action under section 38 of the Public Health Act in respect of several dwellings in that municipality, but the local authority took no further steps in the matter. The municipality, be it remarked, is one with rather more than the average percentage of dilapidated and insanitary dwellings. On the other hand, several authorities, notably Paddington, Waterloo, Waverley, Ashfield, Balmain, and Burwood, have been most zealous in administrating that portion of the Public Health Act which deals with dwellings injurious to health.

Year by year the need of a Building Act to regulate the building of houses in the suburbs is becoming more urgent. The City of Sydney possesses very plenary powers in this respect under its own Acts, but the suburban municipalities have no such powers, and the handiwork of the jerry-builder is strongly in evidence in all the suburbs. Many of the dwellings enumerated in the above list as having been condemned were comparatively new, but from gross defects of construction had quickly become dangerous as habitations, or were so from the very time of their completion. I have myself seen in course of erection, during the year, dwellings which were being constructed in the flimsiest and cheapest way, and so as to outrage most of the laws of sanitary house construction, and yet local authorities have no power to interfere with such dwellings until they are completed and proved to be insanitary from dampness, bad ventilation, or other reasons, and often not until they have been occupied for long periods by helpless ratepayers, from whose families a heavy toll of sickness and death may have already been exacted, is the local authority prevailed on to interfere and condemn the offending habitations.

As usual a considerable number of complaints reached me regarding nuisances caused by municipal garbage tips, and I have had to investigate several such. Very little improvement has taken place in the metropolis in the past twelve months in the methods employed by borough councils in dealing with this class of refuse. North Sydney, which last year was burning all its refuse in a destructor, is this year using a tip, the contract for incineration having expired and terms for its renewal not having been agreed to with the contractor. The Southgate destructor which I reported last year as being constructed to deal the with garbage of the combined municipalities of Petersham, Ashfield, and Leichhardt, was duly completed early in the year, and immediately commenced operations. It was soon found to be inadequate to deal with the refuse of the three boroughs, and its full capacity proved to be not more than sufficient for that of Petersham. With this limitation it has proved a success, and has continued to destroy all the refuse of that borough satisfactorily and without nuisance. The garbage of the City of Sydney continues to be disposed of by tipping in Moore Park. An attempt was made in April to barge it to sea, but owing to complaints of residents at Manly, Watson's Bay, and other localities, of floating refuse left by the tide on the beaches, the attempt was abandoned, and the Moore Park tip again resorted to. During the latter portion of the year the tip has been better managed than previously. Picking over the refuse for saleable articles has been forbidden, and a number of persons who followed this occupation have been ejected from the park. Much of the worst of the garbage is covered with street sweepings, and the dairy cows which formerly roamed over the tip and browsed on the choicer morsels of garbage, are carefully excluded. In spite of all improvements, however, the site of the tip remains, and will remain, an unsavoury neighbourhood. Its existence as a means of disposal of the putrescent animal and vegetable garbage of Sydney is not consonant with a forward policy on the part of Council. It is much to be hoped that before the year 1901 closes the method of destruction by fire will have come into use, at all events for the worst portion of the refuse of the City.

PUBLIC HEALTH.

During the month of June there were 66 cases of Diphtheria, with 12 deaths, in Sydney and suburbs; and 6 cases with 1 death in Newcastle.

From February 28th to August 3rd, 1901, there were 35 cases of bubonic plague reported in Queensland, with 10 deaths. The cases occurred as follows :—Brisbane, 33; Bundaberg, 1; Cairns, 1.

The President of the N.S.W. Board of Health has received information that the plague has again broken out at Noumea. The following regulation has, therefore, been issued by the board :—"Until further orders, all vessels hailing from or having touched at Noumea or other New Caledonian ports must discharge in the stream, and when entering must be thoroughly fumigated and searched for the destruction of rats before going alongside. Vessels will not then be allowed alongside unless in every case the board's regulations under the Wharfage and Tonnage Acts are fully carried out." It was stated that plague had appeared in the quarters of the Tonquinese in Noumea, and that one European had been isolated.

The Annual Report of the Medical Officer of Health for Sydney appears in abstract in another column. In our next issue we will publish the Annual Report of the Medical Officer for the Hunter River District. These reports are well worth close study.

A comprehensive and important report by the Health Commissioner on "Food Preservatives and Adulterated and Unwholesome Food" was laid on the table of the Assembly recently by the Home Secretary. Dr. Ham suggests waiting for the report of the special committee appointed in England to deal with the same subject, and accepting their final recommendations as a basis for action. Dr. Ham states that the Government Analyst examined 123 samples of food, beverages, drugs, etc., obtained from shops in Brisbane in the ordinary way by inspectors. Two samples of butter contained 2 per cent. of boracic acid. In one sample the acid was stuck in the butter in small pieces apparently without intent to incorporate it into the mass or limit the amount used. Dr. Ham says the indiscriminate use of boracic acid in this careless manner cannot be too strongly condemned. Regarding milk, Dr. Ham says that with the introduction of formalin there has sprung up an idea which seems to be prevalent among milk dealers that the detection of this antiseptic by analysis is extremely difficult, and the use of the article has consequently grown to large proportions. Regarding beers, the report states that in all the samples submitted to the analyst the specific gravity of beers and stouts retailed in Brisbane was much below the standard of good English ale and stout. All the samples of ale contained salicylic acid, and in the majority of cases 2gr. per gallon. One sample contained 8gr. per gallon. Only 10 samples of wine were obtained in Brisbane. It was shown that sugar was used in the making of each. In the majority of cases there was more sugar than extract of grapes. A sample of Brisbane ginger wine contained 112gr. of salicylic acid to the gallon. Several samples of horehound beer also contained salicylic acid. Regarding fruit syrups, the report says they seem to be either entirely fictitious or loaded with preservatives which are a menace to health. Thirty chests of tea were ordered to be destroyed or immediately exported, the latter course being taken. It was found to have been made by mixing magnetic oxide of iron with tea, dust, and sand rolled by means of starch into little pellets of various sizes in imitation of genuine teas. The report recommends that the importation of liquids known as essences of whisky, brandy, rum, gin, and port wine should be prohibited, and the local manufacturers punished. The report states that a common method of making whisky is to dilute the essence of whisky with the proof spirit and then artificially bead the mixture by adding sulphuric acid and olive oil. Some sixty samples of coloured sugar confectionery were examined. In all cases they were found to contain aniline dyes in excessive amounts.

MILITARY INTELLIGENCE.

NEW SOUTH WALES.

Army Medical Corps.—Colonel W. D. C. William C.B., of the New South Wales Army Medical Corps, has been gazetted to the local rank of Surgeon-General while in South Africa. Surgeon-General Williams is Principal Medical Officer to the New South Wales Military Forces.

VICTORIA.

Head-quarters Staff Appointment.-Lieutenant-Colonel Charles Snodgrass Ryan, M.B., to be Principal Medical Officer, *vice* Colonel G. H. Fetherston, M.D., retired. *Retired List:* Colonel Gerald Henry Fetherston, M.D., Head-quarters Staff, to be placed on the Retired List from 30th June, 1901, with permission to retain his rank and wear the prescribed uniform; in accordance with Victorian Military Regulations, Part I., section II., paragraph 6. Colonel G. H. Fetherston to resign his appointment as Principal Medical Officer, Head-quarters Staff, on being placed on the Retired List.

OBITUARY.

The deaths of the following medical practitioners are announced :—

Frederick Francis Ormond Bode, M.B. Syd. 1896, of Pahiatua, N.Z., died from phthisis on June 26th.

Hermann Charles Frederick Esau, M.D., Göttingen, 1851, died at Woodside, S.A., on August 11th, aged 74 years.

William Francis Michael Shells M.R.C.S. Eng., L.R.C.P. Lond. 1888, committed suicide by shooting himself with a revolver at Chatswood, N.S.W., on July 25th. He was 40 years of age.

Alfred Ernest Walsh, M.B. 1894; Ch.B. 1895 Melb., of Bendigo, Vic., and formerly of Marrickville, Sydney, died on July 30th at the early age of 29.

CHANGE OF ADDRESS, ETC.

Broad, Dr. William, has succeeded to the practice and hospital appointments of Dr. C. W. Bruce, at Narrandera, N.S.W.

Brown, Dr. R. P., has removed from Bridgetown to Broad Arrow, W.A.

Fenton, Dr. J. L., late of Mudgee, has commenced practice at Annandale, near Sydney.

Graham, Dr. W. R., late of Broken Hill, N.S.W., has commenced practice at Palmerston North, N.Z.

Guthridge, Dr. J. S., a recent arrival, has commenced practice at Bungendore, N.S.W.

Pabst, Dr. J. O., formerly of the Auckland Hospital, has succeeded to Dr. Erson's practice at Onehunga, N.Z.

Reed, Dr. H. A., has commenced practice at Robertson, N.S.W.

Terrey, Dr. Caleb, late of Kiama, N.S.W., has commenced practice at 177 Macquarie Street, Sydney.

Williams, Surgeon-General W. D. C., C.B., has returned to Sydney from England.

MEDICAL APPOINTMENTS.

The following Medical Appointments are announced:

Alsop, T. O. F., M.B., to be Public Vaccinator for the South-Eastern District, Vic.

Alsop, T. O. F., M.B., to be Officer of Health for the Shire of South Gippsland, Vic.

Brade, Dr., to be Officer of Health to the Abbott's Board of Health, W.A.

Broad, W., M.B., to be Medical Officer to the Hospital at Narrandera, N.S.W.

Brown, Dr. P. E., to be Public Vaccinator for the Registry District of Broad Arrow, W.A.

Deans, John, M.D., to be Public Vaccinator for the South-Western District, Vic.

Elliot, Dr. F. J., to be District Medical Officer and Public Vaccinator at Donnybrook, W.A.

Fetherston, R. H. J., M.D., to be Acting Officer of Health for the City of Prahran, Vic. (temporary.)

Harse, W. T., M B., to be Public Vaccinator for Northern District, Vic.

Harse, W. T., M.B., to be Officer of Health for the Shire of Huntly, Vic.

Hay, J. B., M.B., to be Officer of Health for the Shire of Echuca, Vic.

Howse, N. R., F.R.C.S. Eng., V.C., to be Government Medical Officer and Vaccinator at Orange, N.S.W.

Hoystead, L. N., M.R.C.S., to be Public Vaccinator for the South-Western District, Vic.

Ingham, J. H., M.B., to be Officer of Health for the Shire of Wyndham, Vic.

Ingham, J. H. I., M.B., to be Public Vaccinator for Metropolitan District, Vic.

Irwin, Dr. H. O., to be Public Vaccinator for the Registry District of Boulder, W.A.

Logan, Dr. W. A., to be Resident Surgeon at Timaru Hospital, N.Z.

MacFarlane, Dr. A. A., to be Resident Medical Officer to the Trial Bay Prison, N.S.W.

Matthews, J. F., M.R.C.S., to be Public Vaccinator for the South-Western District, Vic.

McDonnell, L. G. A., M.B., to be Visiting Surgeon to the Police Gaol, at Herberton, Q.

Moir, Dr. Peter, to be Assistant House Surgeon at Coromandel Hospital, N.Z.

Montgomery, S. R. H., to be Superintending Medical Officer of Lunatic Asylums, W. A.

Murray, A. H., L.R.C.S.I., to be Medical Officer at Cunnamulla, Q.

O'Flaherty, Dr. L. S., to be Officer of Health to the Brelong Local Board of Health, W.A.

Rigby, Dr. W. H., to be District Medical Officer and Public Vaccinator at Collie, W.A.

Romeo, G., M.D., to be Government Medical Officer and Vaccinator at Coolah, N S.W.

Rosenfield, R. L., M.B., to be Public Vaccinator for Metropolitan District, Vic.

Shields, O., M.B., to be Public Vaccinator for Midland District, Vic.

Smith, J. A. R., M.B., to be Public Vaccinator for the South-Eastern District, Vic.

Smith, J. A. R, M.B., to be Officer of Health for the Shire of Mornell, Vic.

Thomas, J. C., M.D., to be Public Vaccinator for Metropolitan District, Vic.

Wace, Dr. R. H., to be District Medical Officer, Quarantine Officer and Public Vaccinator at Onslow, W.A.

White, D. O., M.B., to be Public Vaccinator for the South-Western District, Vic.

Wolfender, Dr. J. H., to be Officer of Health for the Borough of Dunolly, Vic.

Young, D. H., M.B., to be Public Vaccinator for the North-Eastern District, Vic.

Yule, J. S., M.B., to be Acting Health and Medical Officer at Port Douglas, Q. (temporary).

Zlotkowski, F. S. W., M.B., to the Medical Officer at Mungindi, Q.

REVIEWS.

Golden Rules of Hygiene. By F. J. Waldo, M.A., M.D. Cantab., D.P.H., Barrister-at-Law, Medical Officer of Health Inner and Middle Temples, etc. "Golden Rules" Series, No. X. Bristol: John Wright and Co., 1901. Price, 1s.

This, the latest of the now well-known "Golden Rules" Series, is intended to refresh the memory of the practitioner or student of Public Health. The usual subjects—air, water, refuse, food, infectious diseases—are dealt with in terse rules, full of information, and well selected.

It is a valuable addition to the series.

Hygiene and Public Health. By Louis Parkes, M.D., D.P.H. Lond. Univ., ; Lecturer on Public Health at St. George's Hospital Medical School, etc., ; and Henry Kenwood, M.B., D.P.H., F.C.S., Assistant Professor of Public Health at University College, London, etc. With illustrations. Pp., 732. Crown 8vo. London: H. K. Lewis. Price, 12s.

This is a new edition of the well-known work by Dr. Louis Parkes, which ran through five editions in ten years. While especially designed for candidates for the various Public Health Diplomas, it cannot fail to prove useful to those members of our profession, such as Government Medical Officers, who are called upon to do sanitary work in country districts.

The chapter dealing with water is very readable, while that on the disposal of refuse is up-to-date, and contains more information on the subject than is usually found in similar manuals. Air and ventilation, warming and lighting, climate and meteorology, communicable diseases, disinfection, statistics, sanitary law, are the headings of chapters devoted to the consideration of these subjects. There is a good chapter on soils and building sites which will well repay perusal. A short chapter on exercise and clothing, and a long one on food, beverages, and condiments complete a very readable and useful book.

We welcome with great pleasure this edition, which is well illustrated, and predict for it the ready sale it so richly deserves.

Diseases of the Heart. By Edmund Henry Colbeck, M.D. Cantab., M.R.C.P. Lond., D.P.H. Camb. Messrs. Methuen and Co., 36 Essex Street, London, W.C. Price, 12s. A demy-octavo book of 330 p.p.

The object of the author has been to produce a book, dealing with the clinical side of the subject of heart disease in a form suitable for the requirements of the student and newly qualified practitioner of medicine, and on doing so he has succeeded admirably. It has been the endeavour of the author to fulfil these conditions in as concise and systematic a manner as possible. In order to keep the size of the book within reasonable limits, he compressed the subject matter in such a manner so as not to interfere with the intelligibility of the text, and avoided allusion to controversial questions. Though containing much original matter, the author has freely consulted and made use of the writings of the leading authorities on diseases of the heart, whose names he enumerates in the preface. The work is clearly printed and amply illustrated with drawings, diagrams and pulse tracings, and is well worthy of perusal.

CLINICAL LECTURES ON STRICTURE OF THE URETHRA AND ENLARGEMENT OF THE PROSTATE. By P. J. Freyer, M.D., M.Ch. London: Bailliere, Tindall and Cox. Sydney: L. Bruck. Price, 5s.

This little volume consists of a series of lectures delivered at the Medical Graduates College and Polyclinic, last year. The author, in response to numerous requests from those who were present at the lectures, has now published them in an octavo volume of 115 pages. His aim has been to give a clear, concise and practical resumé of the present knowledge of the subject with which he has dealt. The methods of treatment advocated are those which, from personal experience, he has found sound and effective. Subjects treated on are—1. Stricture of urethra, its varieties, pathology, symptoms, secondary results and diagnosis. 2. Treatment of stricture by dilatation, management of complicated cases. 3. Operative treatment of stricture. 4. Enlargement of the prostate, its nature, pathology, symptoms and diagnosis. 5. Treatment of enlarged prostate and its complications. 6. The operative treatment of enlarged prostate. The book is well printed, profusely illustrated, and well worthy of the reputation already achieved by its author.

A TEXT BOOK OF MEDICINE. By G. A. Gibson, M.D. etc. In two volumes. Young J. Pentland, Edinburgh and London.

This is a laudable effort by thirty-six of the leading physicians of Great Britain, under the editorship of Dr. George Alexander Gibson, to produce a text-book in medicine of an up-to-date character. The advance in every branch of medicine during the last few years has been so great as to create a want of a work reflecting modern British teaching, and it has been felt that this can only be satisfactorily done by the united efforts of several writers, who represent different important schools in the United Kingdom. The contributors very wisely decided to include, as a preface to each subject, a preliminary discussion of general etiological and pathological problems. They have also included a comprehensive series of chapters upon skin diseases. These two volumes consist of an up-to-date compendium of the modern views regarding medicine, each subject being treated by a master hand.

A SYSTEM OF PHYSIOLOGIC THERAPEUTICS. A Practical Exposition of the Methods, other than Drug-Giving, Useful in the Treatment of the Sick. Edited by Soloman Solis Cohen, A.M., M.D., Professor of Medicine and Therapeutics in the Philadelphia Polyclinic; Lecturer on Clinical Medicine at Jefferson Medical College, etc. Volume 11, ELECTROTHERAPY. By George W. Jacoby, M.D., Consulting Neurologist to the German Hospital, New York City; to the Infirmary for Women and Children, etc. In two books. Book II., Diagnosis, Therapeutics. Illustrated. Published by P. Blakiston's Son and Co., 1,012 Walnut-street, Philadelphia, Pa. Price, Eleven Volumes, $22.0 net.

Notwithstanding the number of books on electrotherapy, the author asserts that he has undertaken the task of rearranging and restating well-known facts as to the part played by this science in a system of extra medicinal therapeutics. The author considers that electricity merits as much consideration in our treatment of disease as do other non-medicinal methods. And, as he holds that there must be some radical defect in the usual manner in which the subject is presented, that the medical student pays so little attention to the study of electricity, which opinions he endeavours to show, are governed by the following considerations:—1. Electricity from day to day acquires more and more importance scientifically and practically. It is therefore absolutely necessary that those who utilise electricity as a remedial agent, should acquire a knowledge of the fundamental laws, the ability to use instruments in their application, and have precise ideas of the meaning of the expressions employed. 2. The theory of the explanations of the phenomena should be the one-fluid theory which fully explains all phenomena, so much simpler than the two-fluid theory, and is the only one that is convenient in the discussion of dynamic electricity. 3. In face of the distaste of students of medicine and physicians in general for mathematical demonstrations and technical explanations, the author aims to reduce these difficulties to a minimum. 4. Physiology and diagnosis are the direct support of therapy, and to this rule electro-therapeutics form no exception. 5. Though in the employment of all remedies, a certain degree of empiricism is unavoidable, the more simplified the treatment becomes the more will the subject be denuded of the mysticism that has hitherto surrounded it, and then more can be realised of what may be accomplished. We have received two volumes of this work, which when completed, will consist of eleven volumes. Volume 1st is divided into two parts, treating of electro-physics, apparatus required for the therapeutic and diagnostic use of electricity. The 2nd volume is a practical exposition of the methods other than drug, useful in the treatment of disease; also touching upon the subjects, electro-physiology, electro-pathology, electro-diagnosis, electro-prognosis and electro-therapeutics. The books contain about 300 pages each, are admirably printed, and copiously illustrated. We regret that we have not space for a full review, but shall give further notice in a future issue.

STUDIES IN THE PSYCHOLOGY OF SEX, THE EVOLUTION OF MODESTY, THE PHENOMENA OF SEXUAL PERIODICITY; AUTO-EROTISM. By Havelock Ellis. F. A Davis: Philadelphia, New York, Chicago Publishers, 1901.

This work contains three studies under the headings (1) The Evolution of Modesty; (2) The Phenomena of Sexual Periodicity; and (3) Auto-erotism: A Study of the Spontaneous Manifestations of the Sexual Impulse. There are, in addition, three appendices, with the following titles:—(*a*) The Influence of Menstruation in the Position of Women; (*b*) Sexual Periodicity in Men; (*c*) The Auto-erotic Factor in Religion. In the preface, after referring to the scope of the work, the writer explains the difficulties which an English investigator has in approaching this subject. He says: "He may take it for granted that any serious and precise study of the sexual instincts will not meet with general approval; his work will be misunderstood; his motives will be called in question; among those for whom he is chiefly working he will find indifference. Indeed, the pioneer in this field may well count himself happy if he meets with nothing worse than indifference. Hence it is that the present volume will not be published in England, but that, availing myself of the generous sympathy with which my work has been received in America, I have sought the wider medical and scientific audience of the United States. In matters of faith, 'liberty of prophesying was centuries since eloquently vindicated for Englishmen. The liberty of investigating facts is still called in question, under one pretence or another, and to seek out the most vital facts of life is still in England a perilous task.' "

From the preface it can clearly be seen that the chief part of this work is taken up in mentioning facts which have been recorded, many of which have extreme interest historically. In the first study the evolution of modesty is dealt with, and the reader learns many facts in connection with ancient and modern history which are interesting and instructive. No deductions are drawn from this evidence except to show that "civilisation tends to subordinate, if not to minimise modesty, to render it a grace of life rather than a fundamental social law of life," or in other words, "As civilisation advances, modesty tends to become extended but not intensified."

The second study, on sexual periodicity, furnishes a mass of historical and physiological evidence on the subject, dealing with menstruation, its causation, and its relations to other functions in the female, and notes the predominence of sexual excitement at and around the period—a corresponding sexual periodicity in the male is next suggested, and afterwards the underlying causes of these seasonal phenomena are discussed.

The third study, entitled, "Auto-erotism: A study of the Spontaneous Manifestations of the Sexual Impulse," the longest study, is embraced in 85 pages. Masturbation in many phases and relations is discussed here, and much historical and scientific evidence adduced to show that the teachings and general impressions of moralists and physicians are not altogether based on facts, but as the author points out in his preface, the gathering of facts on such a subject is of prime importance, and has purposely left out the question of treatment or prevention; to quote from his preface, "The omission of such considerations at this stage is intentional. It may safely be said that in no other field of human activity is so vast an amount of strenuous didactic moralising founded on so slender a basis of facts. In most other departments of life we at least make a pretence of learning before we presume to teach; in the field of sex we content ourselves with the smallest and vaguest minimum of information, often ostentatiously second-hand, usually unreliable. I wish to emphasise the fact that before we can safely talk of either curing or preventing these manifestations we must know a great deal more than we know at present regarding their distribution, etiology, and symptomology; and we must exercise the same coolness and caution as—if our work is to be fruitful—we require in any other field of serious study. We must approach these facts as physicians, it is true, but also as psychologists primarily concerned to find out the workings of such manifestations in fairly healthy and normal people. If we found a divorce court judge writing a treatise on marriage we should smile; but it is equally absurd for the physician, so long as his knowledge is confined to disease, to write regarding sex at large. Valuable as the facts he brings forward may be, he can never be in a position to generalise concerning them, and to me at all events it seems that we have had more than enough pictures of gross sexual perversity, whether furnished by the asylum or the brothel. They are really only instructive when they are seen in their proper perspective as the rare and ultimate extremes of a chain of phenomena which we may more profitably study nearer home."

With such a preface we can only look for good to come from perusal of these studies by those amongst whom it is meant to be circulated.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

THE following persons have been duly registered as legally qualified medical practitioners in their respective states:—

NEW SOUTH WALES.

Hill, Reginald Horace, Lic. Soc. Apoth. Lond. 1897.
Leary, William Albert Edward, M.B., B.Ch., B.A.O. Univ. Dubl. 1893.
Nolan, Herbert Russell, M.B. Univ. Syd. 1890.
Tilley, William James, Mem. R. Coll, Surg. Eng. 1884; Lic. R. Coll. Phys. Lond. 1884.

For Additional Registration:

MacCormick, Alexander, Hon. Fell. R. Coll. Surg. Eng. 1900.
McMaster, Donald Aeneas Dunlop, Mem. R. Coll. Surg. Eng. 1901; Lic. R. Coll. Phys. Lond. 1901.

NEW ZEALAND.

Graham, Walter Robert, L.R.C.P. & S. Edin.; L.F.P.S. Glasg. 1898.

SOUTH AUSTRALIA.

Verco, Clement Armour, M.B., M.S. Syd. 1901.

WESTERN AUSTRALIA.

Harper, George Craig, M.B. Melb. 1901.
Hutton, John Robert, M.B., Ch.M. Edin. 1887.
Montgomery, Sydney Hamilton Rowan, M.B. Bac. Surg. Royal Univ. Irel. 1894.

BIRTHS AND DEATHS.

BIRTHS.

BUCKNELL.—On the 17th July, at Warminster, Petersham, Sydney, the wife of Dr. L. F. Bucknell, of a son.

DOYLE.—On the 3rd August, at Kooralli, Potts Point, Sydney, the wife of A. A. Doyle, F.R.C.S.I., of a son.

ELLIOT-SMITH.—On the 3rd June, at Cairo, Egypt, the wife of Dr. G. Elliot Smith, of a son.

GLEDDEN.—On the 17th July, at 22 College-street, Hyde Park, Sydney, the wife of A. Maitland Gledden, M.D., of a daughter.

NEWTON-TABRETT (Dr. Alice).—On the 14th July, at Marrickville, Sydney, the wife of B. C. Tabrett, of a son.

RITCHIE.—On the 16th July, at Glenera, Baillie-street, Horsham, Vic., the wife of R. H. Ritchie, M.B., B.S., of a son.

DEATHS.

CORTIS.—On the 10th August, at Manly, Sydney, Susanna, the beloved wife of William S. Cortis, M.D., late of Annandale, aged 80 years.

HOWARD.—On May 29th, at North Carlton, Marion Edith, eldest daughter of G. T. Howard, M.D., aged 9 years.

KIERNANDER.—On the 8th August, 1894, at his private residence, Sussex-square, Brighton (Eng.), W. Coleridge Kiernander, Lieutenant-Colonel Her Britannic Majesty's I.M.S., eldest son of W. Ward Kiernander, J.P., grandson of Captain (Brevet-Major, Charles Kiernander, great-grandson of the Rev. Zachariah J. Kiernander (Anglican), and brother of Dr. H. Byrne Kiernander, Sydney.

RUNDLE.—On the 30th July, 1901, at Beaufort, South Africa, William John Scott Rundle, Lieutenant 6th Dragoon Guards (Carabineers), died of wounds received in action. Eldest son of Dr. Rundle, Rooty Hill N.S.W. (By cable.)

WALSH.—On the 30th July, at his late residence, Marlborough Lodge, Bendigo (Vic.), Dr. A. E. Walsh, beloved husband of Annie Walsh, third son of Mr. F. Walsh, J.P., Auburn (Vic.) and son-in-law of Mr. W. F. Mooney, Hawthorn (Vic.), in his 29th year. *Requiescat in pace.*

AUSTRALASIAN MEDICAL GAZETTE.

ORIGINAL ARTICLES.

BOVINE TICK FEVER.

By Frank Tidswell, M.B., Ch.M. Syd., D.P.H. Camb., Principal Assistant Medical Officer of the Government of New South Wales, Sydney.

From the Micro-Biological Laboratory of the Board of Health.

Two years ago it became my official duty to conduct an experimental inquiry concerning certain aspects of the disease of cattle known in Queensland as tick fever or redwater. The observations were made partly at the Quarantine Station, North Head, Sydney, and partly at Greenfell, Rockhampton, Queensland; and the detailed results were published in two reports issued by the Department of Public Health. The fact that this bovine disease presents etiological analogies with malaria, and possibly also with the hæmoglobinuric fever of tropical West Africa[1], induces me to offer the following summary description of its principal features. Although not a disease coming within the practical sphere of action of medical men, it is interesting in view of the increasing amount of importance which is nowadays ascribed to the intervention of external parasites in the dissemination of disease.

The tick fever of Queensland is identical with the Texas or southern cattle fever of the United States. It occurs, also, in Jamaica, the Argentine Republic, South Africa, Roumania, Java, Finland, Sardinia, Italy, Turkey, France, Algeria, Tunis, and probably in other places as well. It is only known to affect horned cattle, and is not directly communicated from beast to beast, but, under natural conditions, is only acquired by an animal as a consequence of infestation by cattle ticks. Hence, in order to understand how tick fever is spread, it is necessary to know the essential features of the life history of cattle ticks.

Cattle Ticks.—These ticks begin life by being hatched from eggs laid upon the ground by adult females. The tiny larval ticks on emergence from the eggs are no bigger than pins' heads. They have six legs, are very active, and swarm about the grass endeavouring to attach themselves to cattle. Unless they find a bovine host the ticks cannot develop further and will ultimately disappear, but they are very hardy and seem to be able to survive in this larval stage for several months. If they succeed in getting upon cattle they attach themselves by boring into the skin, and then they go through several further developmental stages. At the end of about a week, during which they grow very slightly, they pass through a moult and become eight legged or nymphal ticks. At the end of another week, during which they become visibly larger, they pass through another moult and become sexually mature ticks, being then distinguishable as males and females. There then follows a period of pairing, and for this purpose the male ticks detach themselves and seek the females which remain attached. At the end of about another week the females are fertilised and ready to lay their eggs. Preparatory to this process the females fill themselves with blood sucked out of their bovine host, at the same time swelling very commonly to the size of a coffee bean. Having thus become engorged the females detach themselves from the host, fall to the ground, crawl to shelter in the grass and begin laying their eggs, from which a new generation of ticks arise.

The whole period of parasitic life upon the cattle is about three weeks. Some of the females removed from the cattle at Greenfell and kept in glass boxes, began to lay their eggs about six days afterwards, and continued laying for 17-21 days; by which time some of the first laid eggs had begun to hatch out. Hence the period elapsing between the removal of the females from the cattle, and the appearance of new brood was about three or four weeks.

The periods observed by us, as just stated, are practically the same as those reported by other investigators, and may, therefore, be accepted as approximately representing the usual behaviour of cattle ticks. But it must be pointed out that although the time passed by the ticks as parasites upon the animals is practically always the same, *i.e.*, about three weeks, the period during which they are upon the ground is liable to variation. According to American and Queensland authorities, the females begin to lay their eggs in from two to ten days after falling off the cattle. It will be seen that the period of six days observed by us represents about a medium time. The time required for the hatching out of eggs is subject to modifications dependent

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(1.) "It is reasonable to infer that blackwater fever may be due to a protozoal organism akin to that of cattle in 'redwater fever.'" L. Sambon, *Practitioner*, March, 1901. See also E. G. H. and M. H. Williams, *Journal of Tropical Medicine*, December, 1900.

upon external conditions, such as temperature, moisture, environment, etc. It is stated that when circumstances are favourable, the process is completed in between a fortnight and three weeks (in our case 17 days), but unfavourable conditions may delay it for a much longer period. Again, the minute, larval six-legged ticks, which emerge from the eggs, are ready to become parasitic at once after being hatched, and they may get a host almost immediately or they may not get one for some considerable time. Hence the duration of this period of their existence is also subject to variation. It follows from the above considerations that if the laying and hatching be completed in the usual time, and cattle be immediately available, to the young ticks, generation may succeed generation every seven or eight weeks. But adverse circumstances may result in the prolongation of the non-parasitic period of tick life, and so retard the succession of generations. Vicissitudes in this respect will necessarily have a determining influence on the rate of multiplication and spread of ticks after their introduction into new territority.

Generally speaking, the introduction of ticks into clean country is effected by the importation of tick-infested cattle. It cannot be denied that other animals, especially sheep and horses, may also act as carriers, but there is no doubt that the spread of ticks has been mainly due to the movements of horned cattle. After the introduction of ticks, the first event in their further dissemination is infestation of the pastures by the falling off of the engorged females, and the laying and hatching of their eggs. After hatching, the young ticks invade the cattle. It is important to note that cattle become infested by ticks whilst these latter are still in their larval stage, and hence the invading ticks reach the cattle from the ground. Direct transference of ticks from beast to beast either does not occur at all, or only with such extreme rarity as to be quite insignificant as a mode of spread. The essential thing is the infestation of the pasture, and the time at which this occurs depends upon the stage of development of the ticks at the date of importation of the infested cattle. Supposing that some of the ticks are fully matured when these cattle arrive, they may drop off immediately, begin laying in two days, and the hatching of the eggs may be completed in another fifteen days, and the young ticks may invade the clean cattle in another day or two; the whole process thus requiring about 19 or 20 days. On the other hand, supposing that the imported cattle carry only larval ticks, which they acquired but a day or two prior to their arrival in the clean country, these ticks will need to complete their parasitic life, taking about twenty days before they can fall off. After that, the process is the same as in the case of already matured ticks just mentioned, requiring, say, another 20 days. Therefore with larval ticks only, the infestation of the clean cattle will not occur till after the lapse of about 40 days.

It is apparent, therefore, that although all the circumstances be favourable to it, tick infestation of the clean cattle will not occur until between, roughly, three to six weeks after the importation of tick-bearing cattle into clean country. Stating the same fact from another standpoint, one may say that clean cattle in clean country remain clean for about three weeks after imported tick-infested cattle are brought into association with them. Hence there is this interval at least in which to take measures such as might prove of value in certain cases, *e.g.*, where a few head of tick-infested cattle are accidentally imported on to a clean run. If the clean cattle be removed out of contact within the time specified above, the infested cattle slaughtered or got rid of, and the pasture thoroughly burnt out and left unstocked for a season or longer, the threatened tick invasion of the run might be averted. It must be understood, however, that such a measure is of application strictly limited to the first appearance of ticks in a district.

When tick-infested cattle have grazed for two or three weeks, the pasture must thereafter be regarded as infested country. The mature ticks falling off the infested cattle give rise to larval ticks in two or three weeks, and these latter occupy the field, and are ready to at once attack any cattle coming within their reach. From what was said concerning the powers of endurance of the larval ticks, it follows that the infested state might persist for many months, although the particular pasture were left unstocked. In unstocked pastures, although the ticks might survive for a time, they could not multiply, for the multiplication of ticks occurs only as the result of their development upon cattle. It is true that the actual increase, *i.e.*, egg-laying and hatching, occurs after the female tick reaches the ground, but its determining cause is the pairing of males and females during the last week of their parasitic existence upon the beasts. Dr. Salmon considers that to ensure the death of all the ticks the pasture must be be left unstocked for at least two years.

Ticks characteristically exhibit a superabundant fertility, each female completing her life cycle lays about 2,000 eggs. The mere fact that the female reproduces so enormously connotes that a considerable proportion of the young are foredoomed to destruction either as eggs or as ticks. Failure of the eggs to hatch, of the larvæ to secure hosts, of the parasitic ticks to reach maturity, of the females to become fecundated and lay fertile eggs, etc., must result in enormous loss. It is impossible to estimate numerically, or even to make a reasonable guess, at the extent of this loss, but it is very certain that, for a time at all events, it is not such as to prevent wholesale multiplication of ticks. The loss, however great, is more than counterbalanced by the prolific reproduction which leads to increase by hundreds of thousands of ticks at each generation. As successive generations commonly follow one another at intervals of seven or eight weeks, the resulting multiplication is truly stupendous. No doubt sooner or later there comes a time when further increase ceases, owing to the lack of means of subsistence for any greater number. But this epoch does not occur until the ticks are present in uncountable hordes. After having thus established themselves they continue to remain in numbers which, though fluctuating, are always in myriads. Of course, the amount of multiplication in any particular time or place depends on the existence of conditions, climatic or other, which affect tick life, but in all regions favourable to their existence they appear to be able, not only to obtain, but to maintain their foothold in spite of all human efforts directed against them.

In this marvellous capacity for numerical increase and maintenance there probably lies the most serious aspect of the tick question. We may succeed, for a time at least, in preventing importation by restrictive measures at the border; we may succeed occasionally, in stamping them out at their first introduction, if immediate and vigorous measures be taken; but experience indicates that if the ticks once establish themselves they cannot be eradicated by any practical means at our disposal. It is only under circumstances dependent upon adverse climatic influence, such as result from the winter snows in America, and apparently also from the heat and dryness of inland parts of Queensland, that the ingress of ticks has been followed by their disappearance.

The Infestation of Cattle by Ticks.—The young ticks seem to be very expert in attaching themselves to cattle. On examining our herd 24 hours after their arrival in the infected paddocks we found every animal already invaded by hundreds of the larval ticks. The presence of the parasites was indicated by several suggestive attitudes assumed by the cattle, frequent rubbing of the cheeks against the fore leg, biting at the hind legs, scratching with the hind legs, etc. Day by day the number of ticks increased upon the beasts, by continual invasion of fresh crops of larval ticks. Those first coming passed through their developmental stages, and after the third week every animal harboured ticks in all stages—larval, nymphal, mature, and engorged.

This incessant onslaught of the ticks is not without effect upon the health of the cattle. Contrary to former belief, it is now known that the ticks themselves, apart from causing tick fever, injuriously affect the health of the cattle, and may produce the serious and even fatal illness which Dr. Hunt has described under the names of "tick worry," "tick irritation," "tick poverty," and "tick anæmia." These disastrous effects did not occur in our own herd, but we observed certain lesions undoubtedly due to the parasitism of ticks. Upon two horses taken by us from New South Wales to Greenfell, the ticks developed in the same way as upon cattle, and although in less numbers, still abundantly. They did not give the horses tick fever, but they produced small inflamed lumps, at the sites of their attachment, and apart from this caused denudation of the hair, a patchy baldness, especially on the face and brisket. These same effects were observed in the cattle, but in these animals there were other troubles of graver consequence. The local inflammation often resulted in fissures and raw areas, especially in folds and regions where ticks were numerous and the skin soft, as the scrotum, groins, etc. In such places, the skin would sometimes slough off in large pieces, leaving ragged ugly sores, which, if untreated, became fly-blown, stinking ulcers. This local necrosis and gangrene had a secondary effect upon the animal's health by consequent blood-poisoning, and by impeding movements, and thus interfering with the search for food. In the case of our animals such lesions were promptly dressed and treated, so that their more severe effects were not observed, but no doubt, if left alone, they would have extended and might easily have led to the death of the affected animal.

It is said that in time cattle become habituated to ticks, and do not suffer as just described. I understand that their acquisition of this satisfactory state implies fatness, or at least, good condition. It is so far in keeping with this statement that the few animals of our herd that remained fairly fat suffered least But I could not decide, for my own part, whether the animals did not suffer because they remained fat, or remained fat because they did not suffer. They appeared to harbour fewer ticks, and it is at least a plausible supposition that the maintenance of a healthy skin, with plenty of fat under it, and normal excretion of fatty sebaceous matter upon it, affords an undesirable and less tenable resting-place for ticks than when the functions of the skin are less perfectly discharged owing to leanness and ill-health.

Tick Fever.—The important consequence of tick infestation of cattle is the production of tick fever. The fever begins to show itself in from 10 to 20 days after the exposure of the cattle to the ticks, lasts, as a rule, from eight to 15 days, during which the temperature is raised to between 103 and 107 degrees F. Accompanying the fever there is a train of symptoms producing the disease picture described in the following account, based on observations made upon the cattle at Greenfell.

The animals remained well until the second week after exposure to ticks, but then many of them began to be ill. Generally, the outward manifestations commenced with an exhibition on the part of previously tractable animals, of restlessness, and inclination to resist interference. In one or two cases there was evident though not violent excitement. A little later, when the fever had actually set in, the animals became quieter, looked dull, and lagged behind the rest of the herd. In the height of the fever the animals ceased to follow their usual habits in seeking pasture, and remained near the yards, standing in the shade of trees with the back arched, belly tucked up, and the head low. When very sick they would lie down most of the time or frequently, often with the head either stretched out along the ground, or arched back over the shoulder and the eyes closed. If such animals were disturbed they walked stiffly, with slight dragging of the hind legs or swaying of the hindquarters. All this occurred in some cases with but little loss of condition, but if the fever was at all prolonged the animals became perceptibly thinner, and in a few cases there was rapid emaciation. No doubt the amount of wasting was more or less influenced by the natural constitution of the animals, but in bad cases the condition finally reached was one of appalling leanness Accompanying the symptoms just described there was commonly loss of appetite, sometimes entire abstinence from food for a day or two; and at this time also rumination was sometimes in abeyance, and in milking cows the milk was suppressed. There was also an excessive dribbling of saliva in the earlier stages of the fever, although the muzzle became dry later on. At first the bowels were sometimes loose, but, as a rule, the dung was from the first or soon became hard, and passed in more or less rounded balls of a dark olive green or brownish colour, and not uncommonly streaked with slimy mucus and blood. In the later stage there was sometimes looseness or even scouring.

Careful examination of the animals after the fever had lasted six or seven days showed that most of them were perceptibly paler than natural. This was especially to be observed within the mouth, nostrils, and eyelids, these parts being sometimes quite blanched. The pallor is due to impoverishment of the blood owing to the destruction of the red corpuscles by the tick fever parasites (*v. infra*). Associated with and dependent upon the blood destruction there was occasionally jaundice, œdema, or hæmoglobinuria. Only slight degrees of jaundice occurred in our animals—just enough to give a yellow tinge to the whites of the eyes, and that only in a few cases. Œdema, in the form of soft, boggy swelling under the skin, was very commonly present, and sometimes extensive, along the belly in the neighbourhood of the navel. We only observed redwater in two cases (controls), both fatal. In the urine of others no blood was detected, even on spectroscopic examination. The urine was very commonly altered chemically, lacking the usual degree of alkalinity, or being even acid in reaction, containing more than the usual amount of solid matter, and certain abnormal constituents, especially albumin.

It may here be remarked that redwater, generally held in the popular mind to be the characteristic sign of tick fever, is by no means a constant, nor even a common, feature of that disease. Many animals go through the fever in a severe form, and even die, without showing the least degree of red colour in the urine. When redwater does appear, it is usually in the height of the fever as the herald of approaching death, or perhaps it is only found at *post-mortem* examinations. This fact is vouched for by the reports of other investigators as well as by our own observations. The reliance which has been placed upon the occurrence of redwater for the diagnosis of tick fever is misleading in two ways, viz., (a) it may not be present in tick fever, and (b) it occurs in other diseases, such as anthrax, tuberculosis of the bladder, "South Coast redwater," etc. The point is referred to in this place merely by way of warning to those not acquainted with the facts.

As might be expected from the foregoing symptoms, the fever was associated with progressive loss of vigour. The quietness, recumbent posture, and stiffness of gait were in many cases the prelude to muscular tremor and irregularity of action (incoordination), passing on to a degree of enfeeblement such that even the reduced weight of the emaciated body could no longer be supported. Towards the end, in fatal cases, the animals became absolutely prostrated, unable to rise, or to continue standing if put upon their feet. Sometimes an animal standing quietly was seen to fall, and on examination was found to be breathing laboriously, quite oblivious to its surroundings, and in the course of an hour or two death occurred after a few spasmodic struggles. In other cases, an animal having come up for inspection in the morning was missed in the evening, and on search being made, was found dead in the paddock. In still other cases the end was more gradually approached, and occurred after several days of prostration and increasing weakness.

Our observations confirmed the statements of others in that we found that death might occur during the height of the fever or after its subsidence. When death occurred during the fever it appeared to result from the very intensity of the disease process; when it occurred later it appeared to be the result of debility and injury to important organs due to the combined influence of fever and blood destruction.

According to the stage at which death occurred, the internal organs were found either congested, swollen, and tense, or pale, of the natural size, or even smaller, and flabby. After death during the fever, the fat was either unaltered or slightly yellowish in color; flesh dark colored but firm; lungs healthy; heart showed exudations of blood under outer and inner linings; spleen swollen and usually, but not always, altered in shape, and softened; pulp deep reddish-violet in colour, and not, or only imperfectly, showing the white framework of the organ; liver swollen and softened, edges less sharp than natural, section mottled or uniformly bright yellow; gall bladder distended with bile, thick and glue-like, or partly solid and granular; kidneys swollen or unaltered, fat around them very yellow, and under them sometimes bloody; bladder unaltered or showing small exudations of blood under the inner lining; urine red coloured or quite clear; stomach unaltered or the lining of fourth very congested, and bright pink in colour; small intestines normal or congested, large intestines mottled with dark areas, generally containing hard fæces.

When death occurred after the fever had sudsided, the fat was scanty and usually yellow in colour. Under the skin, especially the belly, there were collections of fluid or clear jelly-like œdema; lungs healthy; heart pale, old exudations under linings; spleen usually not swollen but soft and flabby, less deeply coloured than in acute cases; liver pale, yellowish areas in interior; gall bladder not distended, contained liquid bile; kidneys pale; bladder natural; urine clear; stomachs generally natural, third sometimes impacted, and fourth showing remains of congestion; small intestines, natural or showing remains of congestion; large intestines mottled with dark areas and containing soft fæces.

The disease just described is due to a hæmatozoon *Apiosoma* (*Pyrosoma*) *bigeminum* which under natural circumstances, is carried and inoculated into cattle by the ticks. In the bovine host it is to be found occupying the red blood corpuscles, usually in the form of a double (bigeminate) pear or flame shaped organism, but sometimes as a more or less rounded body (as seen in microscopical preparations). In the circulating blood, taken during the height of the fever, the number of infected corpuscles may be very great, but the most striking preparations are those of the blood of capillary vessels obtained by means of smear preparations of such organs as the heart. In some of these nearly every corpuscle may contain the parasite. After the subsidence of the fever it is usually difficult to find parasites in the circulating blood, at least in the form just mentioned, although the same blood readily produces the disease on inoculation. It is to be presumed that the parasite undergoes some metamorphosis, and minute rounded or rodlike bodies have been described as forming a phase of the evolutionary cycle. However, the observations on the point are not yet precise enough to warrant reliance and nothing very definite can be said about the matter at the present time The effect of the parasite upon the blood is the destruction of the red corpuscles, with solution of the hæmoglobin in the plasma. The number of corpuscles destroyed is very great in acute cases. As estimated by hæmocytometry there may a reduction from 7,000,000 or 8 000,000 to 1,000.000, or 800,000 corpuscles per cubic millimetre of blood; this enormous decrease being sometimes produced in 24 to 48 hours. The pathological basis of the disease is thus acute infective anæmia. The associated liberation of hæmoglobin causes an over production of bile pigment, distention of the gall bladder, bile stasis, biliary engorgement of the liver, and jaundice. When the liver is no longer able to cope with the excess, the blood pigment is excreted by the kidneys, giving rise to hæmoglobinuria, from which the disease has derived the popular name of "redwater." To all this is superadded the effects of the dissolved constituents of the corpuscular stromata.

The facts with reference to the intervention of the tick in the production of natural tick fever are briefly as follow. Under natural circumstances cattle are never found to suffer from tick fever apart from tick infestation. Young ticks hatched from females collected and kept in glass boxes in laboratories have produced the disease on being placed on clean cattle under circumstances which prohibited the possibility of contamination by natural means, *e.g.*, in places where tick fever was not, and had never been, existent. This indicates that the parasites, taken up on engorgement of the female with the infected blood of the bovine host, are transmitted through the eggs to the young of the succeeding generation. Up to the present time the experimental injection of emulsions of eggs or young ticks have been negative in so far as the production of tick fever is concerned, notwithstanding that in some cases artificial infestation with living young ticks of the same lot as those emulsified has produced the fever. One is inclined to infer that within the ticks the parasite undergoes some evolutionary process preparatory to the acquisition of infective qualities. But this is uncertain, although more than once recently assertions have been made of the discovery of the parasite within the body of the ticks, in a form different from that seen within the bovine host. The observations on this point are as yet not sufficiently conclusive to need detailed mention in this place.

Tick fever can be set up without the intervention of the ticks by the inoculation of blood taken from an animal suffering or recovered from the fever, defibrinated, and subcutaneously injected in doses of five or ten centimetres. If the blood be taken from an animal actually sick it is called "virulent blood," if taken from a recovered animal it is called "recovered blood." In our experience the blood from animals sick or only recently recovered always sets up the disease, but when taken from an animal which had had the fever some time previously it may or may not do so. The persistence of the infectious quality of the blood follows no general rule. In some of our animal it has remained unimpaired during the sixteen months that have elapsed since their illness, whilst in others it was lost within a few months. The persistence or loss did not appear to depend on any particular method of inoculation, and is only to be ascertained by actual trial of the blood. The illness set up by inoculation is the same in kind, but much milder in degree than that produced in the natural way by ticks. Animals kept under observation for sixteen months after inoculation shows no permanent ill effects. They were quite well in a month and remained well throughout the whole period of observation.

Immunity and Protective Inoculation.—It was observed in America that cattle raised in tick country exhibited no signs of the disease, whereas cattle raised elsewhere and brought into such country acquired tick fever, and died in large numbers It was also observed that the blood of the former cattle would produce the disease on injection into clean animals, so that although in apparently good health they nevertheless harboured the micro-organism of tick fever. It was therefore concluded that the tick country cattle had become immune to the disease. It was subsequently found by experiment that clean cattle acquired immunity after passing through an attack of tick fever. Hence arose the practice of giving the cattle an attack of the fever by inoculation of blood, in the hope that the mild illness so produced would protect them against the serious consequences likely to result if they were exposed to ticks.

In the experiments at North Head it was found that once an animal had passed through the inoculation illness, it would not react to reinoculation. Subsequently these same animals were exposed to ticks at Greenfell, near Rockhampton, Queensland, along with uninoculated beasts. The American observers had stated that the protection obtained by a single attack was not perfect, and the Greenfell observations tended to confirm this opinion. But is was found that although most of the inoculated animals suffered with the others, their illness was comparatively slight—as compared with that experienced by the uninoculated animals exposed with them, and in the inoculated beasts the death-rate was 12·1 per cent, whereas in the uninoculated it was 44 per cent. It is thus apparent that inoculation is capable of furnishing a decided amount of protection against naturally acquired tick fever.

With the object of ascertaining the means by which the greatest amount of protection could be obtained, the experiment included observations on the various factors involved in the process of inoculation. Animals treated in different ways were equally protected, and animals treated in the same way suffered in different degrees. The number of inoculations, the period elapsing since the reacting or the last inoculation and the exposure to ticks, the degree of the reactional fever, the dosage, the kind of blood used, etc., appeared to have no special influence upon the result. The issue appeared to be dependent upon the peculiarities of individual animals rather than upon any factor under human control; the one essential for protection was the fact of inoculation having caused a reactional attack.

These further points were noted in connection with the experiments, viz.:—

(a) That the protection could be quickly obtained; animals remained unaffected by reinoculation performed six days after the subsidence of the fever caused by the first inoculation.

(b) That inoculated animals whose blood would not produce reaction when injected into clean cattle might nevertheless be themselves protected against tick fever.

(c) The protection of the mother does not imply protection of the offspring; such calves acquiring tick fever in one instance by inoculation, and in another on exposure to the ticks.

The general outcome of the experiments as regards inoculation was that whilst it has its limitations it is nevertheless capable of conferring considerable protection against tick fever. To obtain that protection the cattle must be properly inoculated with suitable blood, and must undergo a reaction.

The fact that an animal at some previous time had an attack of tick fever, naturally or by inoculation, may not in itself be regarded as sufficient guarantee that its blood is suitable for inoculation. The supposition that such blood is necessarily suitable has been the cause of disappointment and serious loss. To avoid this source of error the blood selected must always be tested as to its infectivity at the time it is actually used. The readiest way of doing this, in the practical application of the method on a large scale, is that suggested and carried out in this State by Mr. J. D. Stewart, M.R.C.V.S., Veterinary Surgeon to the Stock Branch, Department of Mines and Agriculture, viz., to keep back a few of the inoculated animals and observe their temperatures. If they react, it may be safely assumed that the majority of the others have also reacted. Natural insusceptibility in bovines is entremely rare, and blood which produces reaction in one clean beast is pretty certain to produce it in others. If the retained animals do not react, the whole herd must be inoculated again with blood from another source, and the same precautions observed as regards verifying the reaction. In any case the surest plan is to inoculate twice or three times, with intervals of a month between operations, as suggested by Mr. Stewart. It need scarcely be said that the inoculation must be properly performed in all cases, and the blood really injected under the skin.

It is best to have a suitable "bleeder" upon the spot, and to use its blood as soon as possible after it has been shed and defibrinated. In cases of emergency it is possible to make use of blood transmitted from a distance, but practically such blood should not be used if it has been more than two days on the journey.

Last year M. Lignieres, deputed by M. M. Roux and Nocard of Paris to investigate tick fever ("Tristeza") in the Argentine Republic, published accounts in which he claims to have succeeded in cultivating the parasite of tick fever in blood and strongly hæmoglobinised serum, and to have maintained the growths up to the fifteenth subculture. He states that in cultivation the parasite loses virulence, and that at a particular stage the culture becomes suitable for use as a vaccine. He considers this process more certain and less dangerous than inoculation with virulent or recovered blood, and altogether an improvement upon the latter procedure. The reports to hand contain an account of experimental successes, but no practical trial on an extensive scale has yet been recorded.

Prophylaxis.—From the foregoing it will be seen that the tick question presents two aspects, which must be combatted on different principles. The first is the production of tick fever, which must be met by inoculation. The second is the direct effect of ticks, which must be met by measures designed to diminish or destroy these parasites. The measures now in vogue to this end are quarantine, crush inspection, and dipping of infested cattle.

Quarantine is designed to prevent the importation of ticks (exclusion) or to limit their spread from an infested area (isolation). The first process serves a useful purpose provided there be a sufficient buffer area between the tick country and the point of importation; the second has always proved a failure. Crush inspection is accessory to exclusion, and is only of value if the ticks are already well developed—the small larval ticks would probably escape detection sooner or later.

The only way in which cattle can be aided in their struggle against the ticks is by removal of the ticks. Change of pasture is little use since the new pasture very soon becomes as bad as the old. In dairies, or in case of specially valuable beasts, the ticks may be reduced in numbers by mechanical removal by hand, followed by washing and smearing; preliminary clipping is useful under these circumstances. In general, however, the only practicable method by which infested animals may be given the chance of overcoming the parasitism of ticks is dipping in parasiticidal solutions. The value of dipping at the present time may be briefly summarised by saying that whilst it can rarely be so conducted as to ensure the destruction of every tick on a beast, the removal of the bulk of the ticks affords the relief, albeit temporary, necessary to enable the animals to regain sufficient vigour to make an ultimate recovery. The fears formerly entertained that repeated dipping injures the cattle have been proved to be groundless, and now-a-days dipping is repeated every six or eight weeks, or according to circumstances.

The composition of dips, especially as regards the inclusion of arsenic, is still a disputed question. The difficulty has been to find a dip which will kill ticks and not injure cattle. So far as I am aware, no systematic experiments on dipping have been conducted in Australia. Such work is much needed; for since inoculation affords protection against tick-fever, the weakest point comes to be our defencelessness against the parasitism of the ticks. At the present time the most pressing desideratum of the tick question is the discovery of a means of destroying ticks which will at the same time be innocuous to cattle.

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POLYORROMENITIS.

By J. C. Verco, M.D. Lond., F.R.C.S. Eng., etc., Adelaide.

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It may be of interest to bring before the Branch a few cases of polyorromenitis, or "combined serous inflammations." A very good lecture upon the subject, by Dr. Frederick Taylor, will be found in the "*B. M.J.*," 1900, Vol. ii., p. 1693. It is not really a disease, but only a group of symptoms; but the name may be perhaps of value as indicating a group and emphasising it. The causing disease, however, has in every instance still to be determined after the group has been recognised; and this is the main point of course, as it is also the chief difficulty.

The serous membranes included under this term are the pleuræ, the pericardium, and the peritoneum.

The affection may be acute, sub-acute, or chronic.

The causes of the acute form are (1) the diplococcus of pneumonia, causing pleurisy (generally with pneumonia) and pericarditis, or empyema and pericarditis; (2) the streptococcus or staphylococcus of pyæmia and septicæmia, causing double empyema and purulent pericarditis, or purulent peritonitis; (3) the rheumatic poison, causing pericarditis and pleurisy; (4) the tubercle bacillus, causing pleurisy and pericarditis, or pleurisy and peritonitis. This more frequently sets up a sub-acute or chronic affection than an acute one.

The sub-acute or chronic form often begins in one sac, but, after an interval, varying from a few weeks to some months, invades the others. The sequence of invasion, in order of frequency, is said to be (*a*) the peritoneum, then the pleuræ, especially the right; (*b*) the pleuræ, then the peritoneum; (*c*) one pleura, then the other; (*d*) one pleura (generally the left) then the pericardium: (*e*) one pleura, then the peritoneum, then the other pleura.

Picchini and the Italians say these sub-acute and chronic forms are practically always tubercular. Taylor confesses they often are, but asserts that in many cases, neither during life nor after death, is there any proof of the presence of tubercle.

Case 1.—My first case was a patient in Faith Ward, Adelaide Hospital, in 1893. A married woman had an attack of measles, and immediately after the rash, pleural effusion on the left side. This was followed in a few weeks by abdominal pain, and by vomiting persisting for some time, and then entirely ceasing. The abdomen was uniformly tumid, and continued so, with no lumps or irregularities, and very little tenderness on palpitation, and no detectible fluid. There were no evidences of pulmonary disease at the apices. Per vaginam, the uterus felt enlarged, and was somewhat fixed, with tenderness in the fornices. She had pyrexia of a hectic type, and died suddenly from a first and profuse hœmoptysis within four months of her attack of measles. The *post mortem* revealed thickening of the left pleura and the carnification of the lower lobe from pressure collapse, with very scattered miliary tubercles throughout the lungs, but no cavity or breaking down tissue. The omentum was smoothly stretched, without a wrinkle or pucker, from the stomach all over the front of the abdomen to the fundus uteri to which it was attached, and where it was much thickened and fleshy. It was loosely adherent throughout to the parietal peritoneum, and was uniformly dusted over with miliary tubercles, as were also the intestines. There was only a slight exudation of lymph.

Here the disease was subacute, and autopsy verified its tubercular nature.

Case 2.—Mrs. W., aged 32, married, was admitted into Light Ward, Adelaide Hospital on May 9th, 1901. She had begun to be ill with pains in her abdomen, chiefly in the left upper part, which were supposed to be due to indigestion, and she became quite rapidly very large She said she was jaundiced at that time, and suffered from vomiting of yellowish and greenish matter, but no blood. Lately she had dry retching. She had been treated for flatulent dyspepsia, but the swelling had increased, and some tumours had been found in the abdomen, so she was sent into hospital as probably the subject of malignant disease. She had been confined to her bed for two weeks before admission, and ill for nine or ten weeks. There had been no œdema of the legs ; some dyspnœa during the previous few weeks, and that only on exertion There had been frequent micturition at first, but this had passed away.

On examination, she was found to have dulness on percussion below the left third rib, normal respiratory murmur above this, then an area of bronchial breathing, and below this almost silence. Behind, dulness from a little below the spine of the left scapula, and, on the right side, from a little below the angle of the blade-bone, ; at both backs the signs of fluid, and an area of solidified lung above it. Aspiration gave ordinary serous fluid. The abdomen was distended, gave fluid thrill on palpation in the flanks and iliac regions, with lumpiness in front, and a peculiar grating or emphysematous sensation during respiration. Her temperature was at first 101°, and usually varied between this and 100° for five weeks, and then remained normal. The fluid gradually disappeared from the pleuræ, and the condition of the lungs became healthy. The ascitic fluid was also absorbed, but the abdomen still continued full and lumpy. She ate and slept well, and at her urgent request to return home, she was discharged on July 12th. I saw her again on August 28th. She had been feeling well and doing a little work about her house, but occasionally experienced rather sharp colicky pains. She had had four attacks of diarrhœa, each lasting about twenty-four hours. The lungs and heart were free from all signs of disease. The abdomen was full and prominent, especially about and just above the navel, and was thirty inches in girth, which was equal to that of the chest in inspiration. It felt doughy, and distended coils of intestine were visible, especially one lying obliquely from the left downward and to the right just above the umbilicus. Per vaginam, the uterus was found in anteversion, of about normal size, lying in front of and attached to a mass which filled the upper part of the pelvis, and was round like a greatly distended Douglas's pouch. The surface of this was not quite smooth, and was slightly soft, but not elastic as from fluid tension. It fixed the uterus. Per rectum the deposit was palpable in front and at the sides.

This case is so recent as to make it impossible to forecast the ultimate issue, or to speak absolutely as to its tubercular or non-tubercular nature. The elevation of temperature, the wasting, the combined affection of the lungs and pleuræ, and the lumpiness of the abdomen, were strongly in favour of tubercle. But the complete recovery of the lungs and pleuræ, and the disappearance of the pyrexia, permit one to hope it may not be. Still the persistence of the enlargement, and the very considerable solid pelvic deposit, and the recurring diarrhœas, are suggestive of it.

Case 3.—Miss L. R., aged 24, a schoolteacher, was seen by me on September 14, 1889. She was complaining of the size of her abdomen. The enlargement came on almost suddenly some five weeks before. She felt giddy in the morning and broke out into a perspiration ; was ailing all day, and, after eating, felt heavy in the lower abdomen, and at night found she was much distended. Walking very soon tired her, and her legs, which did not swell, ached greatly from the middle of the thighs to the knees. Two days before consulting me she experienced a pain in the right side of the chest, worse on yawning or sighing. She had had a cough for a month with a little expectoration, but the cough had decreased and all sputa had disappeared. She was found to have signs of fluid in the right pleura to the nipple level in front, and to the angle of the scapula behind. The abdomen was uniformly full and soft, but I could not with certainty detect fluid in it. A tonic was ordered, and some iodine paint for the chest, as she was compelled to return on the same day to her school duties in the country.

She was seen again on October 4. She had had four attacks of epistaxis during the previous few days. Her breathing was freer, there was very slight discomfort in the right chest, and the stomach was less swollen.

On October 14th she was put under ether. The abdomen was found to be full, with an obscure hardness extending downwards from the left-rib margin, along the left side of the abdomen, around through the hypogastrium, and nearly up to the right costal arch. It was palpable from the pubes almost up to the navel; percussion resonance was impaired, but not dull. Per vaginam, the uterus was found rather low, the cervix long and conical. Behind, in Douglas's pouch several doughy masses were felt, movable; one could be partly turned on itself. Per rectum no fæces were present. The right thorax was aspirated and about two pints of serum were removed. The diagnosis was a sub-acute or chronic peritonitis, with thickening of omentum and matting together of intestines and pleural effusion. The fear of tuberculosis was entertained. No pulmonary abnormality was detectible.

She was put on six grains of pot. iod., and a tonic three times a day. Her pulse rate was 100; her respirations 26; temperature 98.4°. She was allowed to be up on October 27th, and three days afterwards the note was made, "abdomen is no smaller; the board-like mass seems thicker; there is some sign still of fluid in the right chest."

She gradually got quite well, and in less than two years was married. Eight months subsequent to this I examined her again, and could find no abnormality in her abdomen, heart, or lungs. The last occasion on which she consulted me (for an indigestion) was nearly eight years after her original attack, and then she was physically quite sound, and now, after twelve years, I hear she is in robust health.

CASE 4.—Another case was seen by me in consultation with Dr. Marten. A young, quite healthy-looking woman, had noticed swelling of her abdomen, and went to the doctor solely on this account. It was only of a few weeks' duration. She had double pleural effusion and ascites; no œdema, no disease of heart, kidneys or liver; no pyrexia. It was recognised as one of these cases of polyorromenitis, and a favourable prognosis was given. She gradually improved. Here there were no signs of pulmonary consolidation, and no lumps were palpable in the abdomen.

The last two cases the Italians would affirm to be tubercular. But such an affirmation would be beyond what the facts warrant. The denial of their tubercular nature is, of course, impossible, unless one is prepared to deny the possibility of the obsolescence of tubercle and of recovery from tubercular manifestations, whereas such obsolescence and recovery have occurred after the demonstration of tubercular lesions by laparotomies. Still I think the assertion of tubercolosis, in all this class of cases, is unjustified and unjustifiable, and should not be made. At any rate the *onus probandi* rests upon those who affirm. Because many solitary inflammatory serous pleural effusions which subside are followed within two years by pulmonary tuberculosis and are tubercular in their origin, we are not required or prepared to say all primary serous pleural effusions are tubercular. So because many of these combined serous inflammatory effusions are unquestionably tubercular, we are not ready to affirm or to allow that all are. Most probably, many of them are not. As Taylor says, "neither during life nor after death, in some of these cases, can any proof of tubercle be discovered."

The diagnosis of polyorromenitis may be regarded as two-fold, namely, its separation from secondary non-inflammatory serous effusions, and the determination of its cause.

Effusions into one or both pleuræ, the pericardium and the peritoneum, are quite common events in advanced disease of the heart, of the kidneys, and of the liver. The discovery of any of these complaints, sufficiently severe to occasion such effusions, distinguishes them at once from polyorromenitis.

The determination of its cause may be very easy or very difficult. In the acute forms a remembrance of the possible causes, namely, pneumonia, pyæmia, rheumatism and tubercle, may be sufficient to indicate the actual origin. The first would be diagnosed by the accompanying inflammation of the lungs; the second by rigors, arthritis, an evident explanation *e.g.*, a wound; the third by joint affection without rigors, acid sweating, endocarditis, previous attacks of rheumatism; and the fourth perhaps by some external tubercular manifestation or by pulmonary affection.

In the more chronic forms differentiation may be at times impossible. If the dictum of the Italian school be accepted, that all subacute and chronic cases are tubercular, the matter is absolutely simple. But if we do not give in our adhesion to this theory, can we distinguish between the tubercular and the non-tubercular forms? Pyrexia and emaciation favour the supposition of tubercle, but are not data sufficient to establish such a diagnosis: for the fever may subside, the health and strength be regained, and the effusions completely disappear. If there is persistent diarrhœa, even though it be mild. the probability of tuberculosis is greater. If there are physical signs of apical pulmonary disease, the tubercular nature is almost if not quite certain.

Before concluding this paper we might note that it would be possible to extend slightly the limit of the term polyorromenitis. This usually includes only the pleuræ pericardium, and peritoneum. But the arachnoid membrane of the brain and cord is a kind of serous sac; and so a tubercular meningitis, associated with an ascites, would fall under this heading. This recalls Dr. Marten's case of ascitic peritonitis with subsequent death from meningitis. So we may have diplococcal meningitis complicating a pleuro-pneumonia.

Polyorromenitis is evidently not a disease. It is only a group of symptoms, and, as a group, is somewhat arbitrary in its limitation. It includes the manifestations of several distinct and unallied diseases. The recognition of the group of symptoms does not aid much in differentiating these diseases from one another, and hence is of very little value, especially in the acute forms In the subacute or chronic it may be a convenience and of some advantage by preventing us from concentrating our attention too exclusively upon one of the combined inflammatory effusions to the relative neglect of the others, and so from committing errors of diagnosis such as ovarian tumours, malignant disease. It may also save us from too gloomy and unfulfilled prognoses; for we have learned the possibility of complete recovery from these primary combined effusions, even without "letting daylight into them" by operative interference.

ON SIXTEEN CASES OF CEREBRO-SPINAL MENINGITIS TREATED AT PRINCE ALFRED HOSPITAL.

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Between July, 1900, and February, 1901, sixteen cases presenting the symptoms of cerebro-spinal meningitis have been treated at Prince Alfred Hospital. They form part of an outbreak that occurred in Sydney during that time. In the following paper I have summarised the symptoms occurring in these cases. My thanks are due to my colleagues at Prince Alfred Hospital for permission to utilise their notes in several instances

Season.—The onset of one case occurred in July, of two in August, of four in September, four in October, three in November, one in January, 1901, one in February, the greatest incidence being in September, October and November, the early summer months.

Age varied from 5 months to 43 years, distributed as follows: Under 5 years, two cases; 5-10 years, five cases; 10-20 years, six cases; 20-30 years, one case; 30-40 years, one case; over 40, one case.

Sex.—There were thirteen males and three females.

Residence.—The cases came from all parts of the city and suburbs, showing no preponderance in any one locality. Two cases came from the same house and two from contiguous streets, otherwise the cases were scattered.

Result.—Five recovered, eleven died; a mortality of sixty-nine per cent.

Duration. — In cases that recovered the temperature remained up for periods varying from eight to forty-two days; the total stay in hospital varying from twenty-six to ninety-eight days. In fatal cases the duration varied from thirty-two hours to seventeen weeks; five died in less than a week from onset, three after more than a month's illness.

Onset.—One case died immediately after admission and no history was obtainable. It is excluded from the remaining part of the paper, leaving fifteen cases for comparison. In twelve cases the onset was absolutely sudden, in three more gradual.

Of the latter: A child of five years was dull and feverish one day, next day it vomited and was convulsed, on the fourth day it died. The second complained of headache for a week before taking to bed. The third was admitted for pneumonia and developed meningeal symptoms on the sixth day of illness.

Of the cases with sudden onset, the following are examples: A lad of thirteen, went to school in his usual health, at midday was seized with vomiting and purging, followed by several convulsions, his neck became rigid and a few hours later he became unconscious. He died thirty-two hours after onset. A man, aged thirty-three, was seized suddenly with vomiting and purging, next day his head ached and joints swelled. A child of five years was suddenly, in the evening, attacked with vomiting, screaming, and great bodily tenderness; rigidity of his neck and back came on at once. Vomiting occurred on the first day in eight of the twelve cases with sudden onset. In the same number, headache was an early symptom. In three cases, aged respectively seven, ten and thirteen years, the onset was marked by convulsions.

Headache and Pains.—Headache was noticed as being present in ten of the cases, and in all it was severe. This does not probably represent the true proportion of cases with headache, as four of the six cases in which it was not noted were young children. The headache was mainly vertical and "in neck," but in one case it was chiefly frontal, in another temporal. It persisted usually for several days, except in cases early becoming unconscious. In three cases only is tenderness and pain in limbs or in abdomen mentioned in the notes, but this probably does not represent its frequency, as in all the cases seen by myself there was considerable general tenderness and pain on movement.

Rigidity of the neck and spine is stated to have been marked in thirteen out of fifteen cases. Of the other two, in one it was not noted, in the other it was slightly present on the tenth day, but never well marked. The time of onset cannot be definitely fixed in most cases, as it was usually well marked on admission. It is definitely stated to have occurred in two cases at the onset, in one on the third, in another on the tenth day. In the cases which recovered, the rigidity gradually passed off with the fall in temperature.

Delirium was present in ten of the fifteen cases, and was generally of low muttering character. Its onset was early, in some cases on the first, in others on the third and fourth day. It occurred in three of the five cases which recovered.

Convulsions occurred at onset in four of the fifteen cases; in three on the first, in one on the second day. These were children varying in age from five to thirteen years. In a boy of thirteen, a convulsion occurred on twenty-fourth day, and in an infant of five months several occurred during the first week. Otherwise, convulsions were absent after the onset.

Paralysis.—In one of the non-fatal cases, paralysis of the external rectus of the right eye occurred on the fifth day, but cleared up during convalescence. Among the fatal cases, paralysis was noted in five. In two the external recti were affected, in two the face on one side, in two an arm; in one the muscles of deglutition were paralysed, and in one hemiplegic rigidity was present.

Optic Neuritis was found in four cases, stated to be absent in seven, and not noted in four.

Reflexes varied. The *knee jerk* was noticed to be normal in eight, absent in four, and variable in two. In one of the latter it was absent before, but re-appeared for a day or two after lumbar puncture. In one case the knee jerks were noted to be increased. Ankle clonus was not obtained in any case.

Plantar Reflex.—In two cases the condition was not noted; in eight plantar flexion was present; in one extension (becoming flexion on convalescence); in one it was described as "excessive"; in one with hemiplegic rigidity plantar extension occurred on the rigid, flexion on the other side. In two cases the plantar reflex varied from time to time, being sometimes extension, sometimes flexion, at others absent.

Kernig's Sign was stated to be present in four cases. In the remainder, no note is made of its having been looked for.

Vomiting was absent throughout in three cases, present at onset in nine. In a case which recovered, it occurred at onset and occasionally after the fifth week; in a fatal case, at onset and occasionally after the thirteenth week (this case had hydrocephalus *post-mortem*). In one case it occurred only on the second day, in another on twelfth and thirteenth only, in another at onset and before death on fourteenth day. Excepting these cases it occurred at onset only.

Tâche Cerebrale was noted in two cases; in the others no note is made of it.

Skin Eruptions were present in nine cases. Of these herpes facialis and labialis occurred in six appearing on the fourth, fifth, sixth and eighth day respectively. In one a herpetic eruption occurred in the left forefinger on the seventh day; in one "watery blebs came out over body" on first or second day; in one urticaria occurred on body and legs; in one, both herpes and boils were present. In five cases no rash was noted. In one a bromide rash appeared. No hæmorrhagic eruption was noted.

Joint Swellings were noted in four of the fifteen cases. In one of these, several joints were affected on admission on the third day; in another in many joints, "early"; in the third the right knee swelled on the fourth day; in the fourth the left elbow was affected on the eleventh day. This last case recovered, the effusion subsiding after three days. In two of the fatal cases, the swelling subsided before death; in the third, the patient died on the fourth day, and pus was found in the joint.

Emaciation was marked only in the cases of long duration.

Rigors occurred in two cases at the onset, and in two, later in the course of the case.

Spleen was not felt below the costal arch in any case.

Abdomen was noted to be retracted in five, rigid and flat in four, varying from flat to distended and rigid in three.

Bowels.—Constipation was marked in seven, slight in two cases. In four cases the bowels acted normally. In one slight constipation occurred at onset with slight diarrhœa during tenth and eleventh week. In the most rapid case, fatal in thirty-two hours, purging existed throughout.

The *Tongue* in three cases was noted to be coated with creamy white fur, in the rest either there is no note or simply "coated."

Temperature varied much in character, and no prognostic importance can be attributed to its height and duration. Sudden fall by crisis without subsequent rise occurred in two of the five non-fatal cases, in one it occurred on the seventh in the other on the twelfth day of illness. This occurred in only one of the fatal cases, where a fall from 105° to normal preceded death. A fall to normal is not necessarily of good prognosis, the temperature being normal for some days before death in two of the fatal cases. Duration of fever varied. In the non-fatal cases it lasted seven, nine, twelve, twenty-eight and forty-two days. In the fatal it remained up till death in five cases, was normal in one case for two, in another for twenty days before death. In the latter case fever lasted 12 days. The type of fever was irregular and in prolonged cases tended to assume the hectic type. It seldom rose above 104°.

Pulse.—In fourteen cases records are available. In four it is noted as being rapid and regular In these, which were fatal cases, the rapidity increased up to time of death. In six (or nearly half the cases) marked variations of the pulse-rate occurred from time to time without relation to the respiratory rate or height of temperature, but in none of these except one was the pulse noted as being irregular when taken. Of these cases three died and three recovered. In three the pulse was rapid, generally 120-136, in three not abnormally fast.

As examples of variation may be taken :—

Case 3 (recovered)	6 p.m.	P. 88	R. 26	T. 102·6°
	10 p.m.	P. 100	R. 24	T. 101·8°
„ 13 (fatal) ...	6 a.m.	P. 132	R. 24	T. 99·6°
	10 a.m.	P. 110	R. 30	T. 99·8°
„ 15 (fatal) ...	10 a.m.	P. 88	R 28	T. 101·4°
	2 p.m.	P. 80	R. 44	T. 102·8°

In two cases the pulse is noted as being irregular. In one, a child of five, it was slow and irregular, varying from fifty-two to ninety-six per minute, but averaging sixty to seventy. In this case, which recovered, the temperature fell on seventh day, but pulse remained slow and irregular for six days longer. In the other, which died, it was irregular and very variable, varying from ninety-six to one hundred and forty per minute. In one, a mild case, the pulse was practically normal, varying from eighty-eight to one hundred.

Respiration.—Rate was increased in all cases. Slightly in five, considerably in nine. In one it approached Cheyne Stokes breathing in character. In six, though regular, it varied considerably from time to time and without reference to the pulse rate.

Urine.—The condition was noted in ten cases, in the others it was not obtainable. In five albumin was absent, in three a trace was present, in one a fair-cloud (this case had cystitis), in one a quarter albumin was noted, and on one occasion blood.

Retention was present in three cases. Cystitis occurred in two of the cases of retention, and in one of these urethritis was present.

Otorrhea occurred in one case on the twenty-first day of disease.

Rhinorrhea. — Purulent discharge occurred from the left nostril of the above case on the fourteenth day.

Suppurative Parotitis occurred in one case shortly before death.

Lumbar Puncture was performed on twelve occasions in nine cases. In three cases no fluid was obtained. In these cases it was done on the 4th, 7th, and 25th day respectively. The first of these cases died the day after puncture, and thick, greenish pus was found *post-mortem*. Of the six in which result was obtained :—In the first it was done on the eighth day, and an ounce of opalescent fluid was withdrawn, containing many diplococci intracellulares. The patient's mental condition was much improved next day. This case recovered.

In the second, puncture on seventh day gave about an ounce of opalescent fluid, containing many diplococci. "Headache seemed much worse immediately after puncture." As in the first case, temperature, pulse and respiration were unaffected. In the third case an ounce was drawn off on sixth day, containing many diplococci intracellulares, without affecting the patient's general condition. This case died. In the fourth case half an ounce was withdrawn on fourth day, with apparent improvement in general condition. On sixth day ʒii were obtained without affecting general condition. Fluid was opalescent and contained intracellular diplococci. This case died. The fifth case was punctured three times. On the first occasion, on the fifth day of illness, no fluid was withdrawn; on the tenth day an ounce and a half of opalescent fluid, containing diplococci intracellulares, was obtained; on the twenty-fifth day, ʒii clear, straw coloured fluid escaped. The tappings in no way affected the patient's condition. The patient died on the thirty-third day. The sixth case was punctured on the fifth day, the result being ʒvi. slightly opalescent fluid, which gave no organisms on staining, or culture. The child seemed much improved after the puncture, sleeping well, and being less irritable. In this case, temperature fell by crisis on seventh day, and child made good recovery.

Post Mortem.—Examination was made in seven cases. In two cases dying on the sixth day of illness, the *post-mortem* appearance differed much. In one the note states: "Lymph in scattered patches over vertex, vessels congested, slight cloudy lymph deposit at base. Much cloudy fluid in spinal canal, no pus. Spleen and lungs normal." This case gave, during life, diplococci intracellulares on puncture. In the other case there was "lymph and pus in patches on the convexity, at the base thick greenish curdy pus extending to cauda equina. Pus contained diplococci, not capsuled and not intracellular, as did pus from knee-joint. The exact nature of this organism doubtful. Spleen and lungs normal." A case dying in thirty-two hours is simply stated *post-mortem* to be "cerebro-spinal leptomeningitis." A case dying on the twenty-third day showed a few flakes of lymph on vertex, and much pus at base and along cord. From this diplococci intracellulares were isolated. A case dying on the thirty-ninth day showed pus over vertex and base, especially over frontal lobes. A case dying on the fifteenth day showed purulent basilar meningitis, with pus extending down cord. Apparently resolving pneumonia was also present. A case dying on one hundred and nineteenth day showed hydrocepalus with much thickening of membranes at base and down cord. At the base was much opalescent fluid, and the ventricles contained masses of lymph. No organisms were found in the fluid.

Treatment was by ice-bag to nape of neck and head, morphia and bromides when necessary, strychnine for failing pulse. One fatal case was treated by mercurial inunction, another by large doses of morphia.

Remarks.—It will be seen from the above summary that cerebro-spinal meningitis, as it occurs here, differs little, if at all, in character from outbreaks occurring in colder climates. The number of cases recorded is too few, and the records unfortunately are too incomplete, to permit of generalisation, but the following points seem of interest: The onset in spring and early summer; the preponderance of males to females (thirteen males to three females); the suddenness of onset, attended in the majority of cases by vomiting, and in three, aged eleven, ten and thirteen years, by convulsions; the fact that recovering cases escaped paralysis; the absence during life of palpable splenic enlargement in all cases; the fact that death occurred within a week of onset in half the fatal cases.

It is unfortunate that *post-mortem* examination was obtained in only seven of the fatal cases, and that in these the reports are in most cases wanting as to the nature of the organisms present. In five cases the presence of the diplococcus intracellularis meningitidis was demonstrated, either after lumbar puncture or *post-mortem*.

From a diagnostic point of view lumbar puncture is of the greatest value. It is easy to perform, and in no case were any ill effects noted as the result of its performance. In six cases positive results were obtained; in three no fluid escaped. A negative result on puncture is often due to the blocking of the canula by large flakes of lymph. On several occasions there was no flow till the canula had been cleared by the passage of the plunger which accompanies the trocars in a Potain's aspirator. A moderately large trocar is advisable. In one case, puncture by the resident yielded a negative result, but next day much fluid was obtained through a slightly larger trocar. As a therapeutic agent, puncture appears to be of doubtful value.

Rapid variation in the pulse rate from hour to hour, bearing no relation to the respiratory rate or height of temperature, is, when present, of great value in diagnosis, especially in the cases where rigidity has not occurred early. It is noted as occurring in less than half the cases, but it is doubtful whether it was looked for in the others

For publishing a series of cases incomplete in many essential details, my excuse must be a desire to rouse the interest of the profession in a disease which is apparently on the increase in New South Wales, and one which often escapes detection.

CASE OF EXTIRPATION OF THE LARYNX FOR EPITHELIOMA.

By George T. Hankins, M.R.C.S., Hon. Surgeon to the Department for Diseases of the Ear, Nose and Throat, Prince Alfred Hospital, Sydney.

John Rudd, *æt* 57. Admitted to the Prince Alfred Hospital December 10th, 1900. On September 19th of the same year this patient was operated upon in the same hospital by Dr. Charles MacLaurin for malignant glands beneath the angle of the jaw on the *left* side. This growth was apparently primary, there being no suspicion of disease elsewhere.

On admission on December 10th there was difficulty and pain on swallowing, hoarseness and cough. The thyroid cartilage was pushed over to the left, and was considerably broadened. By laryngoscopic examination a mass was seen involving the right side of the epiglottis, extending along the arytæno-epiglottic fold, and obscuring the view of the interior of the larynx.

December 12th.—Tracheotomy was performed, and the administration of the anæsthetic continued through the tracheotomy tube. The larynx was plugged with gauze to prevent fluids from entering the trachea.

A transverse sub-hyoid incision was made from one sterno mastoid to the other, the thyro hyoid membrane divided, and the epiglottis turned out through the wound. The growth was then brought well into view. It involved the right side of the larynx, and came right up to the middle line. The vocal cords were not implicated. A vertical median incision was then made from the first incision to the tracheotomy wound. The perichondrium, together with the superficial soft parts, peeled from the thyroid, the superior cornua of the thyroid cartilage divided, and the larynx dissected downwards from the œsophagus. The trachea was then divided just below the cricoid cartilage and the larynx removed.

The upper end of the trachea was then stitched to the skin and the pharyngeal wound closed by sewing mucosa to mucosa and skin to skin An opening was left on the left-hand side through which a rubber catheter was passed into the œsophagus.

During the operation the large vessels were exposed on the left-hand side, they having been drawn from their normal position by the cicatrization following the first operation. The hæmorrhage was quite unimportant. Patient went on well until December 16th, when pneumonia set in. The violence of the coughing broke down the union between the flaps, leaving a large triangular opening into the pharynx, bounded by the hyoid bone above and the sterno mastoids on either side.

About this time the patient had a narrow escape from suffocation, owing to regurgitation of liquid food. some of which entered the trachea.

On two occasions, December 24th and 25th, the patient became quite cyanosed, the respiration being unembarrassed, but the pulse rising to 140. From this time the patient improved steadily, and when the cough had quite subsided an attempt was made to close the opening into the pharynx. This was only partially successful, and no less than four subsequent operations were done by different methods to effect a closure. Each operation diminished the gap to some degree, but it is only now that it has closed to the extent that the patient can stop all leakage by pressure with the tip of his finger.

On February 27th the margin of the wound on the right side showed a recurrence of the growth, and an enlarged mass of gland was felt beneath the angle of the jaw. These were removed, and there has, so far, been no return. He is now (August 30th) in excellent health.

Since showing the patient at the monthly meeting of the Branch in August he has contracted influenza, and is at present very ill.

Professor Stuart has kindly offered to have the patient fitted with his artificial larynx, but the man has suffered so much inconvenience from fluids escaping through the fistula that he is very anxious that his pharynx should become watertight, even at the cost of his remaining dumb.

I am in hopes, however, that when everything is sound that he will be able to speak in a fashion, although the communication between the lungs and the mouth is completely cut off, *vide* Dr. Solis Cohen's case, where, under similar conditions, the patient could be heard speak distinctly at a public meeting, and even perform an "alleged act of singing."

ON THE TREATMENT OF TUBERCULOUS PERITONITIS.

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Read before the South Australian Branch of the British Medical Association.

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There are few diseases in which modern treatment has done more good than in tuberculous peritonitis. Sir Thomas Watson, in his lectures, used to say that nine out of every ten cases died, whilst modern statistics show at least fifty per cent. or more of recoveries.

Till within the last few years it was always supposed that tubercle of the peritoneum was invariably secondary to tubercle in some other situation, but it is due to Osler, of Baltimore, to disabuse our minds on this point, as he found it to be primary in five out of seventeen cases examined by him *post mortem*.

It is more frequently found in women *ante mortem* and in men *post mortem*. This is put down to laparotomies being much more common in the female sex, and occasionally the diagnosis of ovarian tumour is made and the fluid turns out to be due to tubercle or some other obscure cause.

During the last seven years I have had three cases of ascites, which were undoubtedly examples of the so-called tuberculous peritonitis, as in each case the diagnosis was confirmed by an exploratory laparotomy. I purpose to read short notes of the cases, and then offer a few remarks on their treatment, with the hope of hearing the views of the members present on the best methods to be adopted.

The first case was a Miss M., sent to me by Dr. Shone. She was seen on November 27th, 1894, and was then aged 25 years, but looked much older than her years. She was a thin woman with a dull, muddy complexion, and complained of a swelling in the abdomen. Her family and past history were good. Her present illness had begun towards the end of October by noticing a painless swelling of the lower part of the abdomen. Her menstrual history began at 13. She had always been perfectly regular, and her periods had not varied for several years past. On physical examination all her organs were healthy except for slight comparative dulness at the base of the left lung. The abdomen presented a smooth, painless, rounded swelling, coming up from the pelvis, dull on percussion, and giving a well-marked fluctuation wave, the flanks being free from dulness in any position. Her temperature ran a normal course, her pulse was 86, small and compressible. The urine had a sp. gr. of 1025 and was free from albumin and sugar. Dr. J. C. Verco saw the patient with me, and we concluded, after an examination under ether, that we had to deal with an ovarian cyst.

On November 30th Dr. Swift, having administered ether, the usual incision for an ovariotomy was made, but on entering the peritoneal cavity free straw-coloured fluid escaped and the lower portion of the cœlom was found to be shut off from the upper, and the peritoneum, and more especially the great omentum, was seen to be studded with thousands of small, pearly translucent nodules, of varying size, from a pin's head to a millet seed. The uterus, and its adnexa, except for being covered with tubercles, were healthy. A glass drainage tube was inserted into Douglas' pouch, and the wound closed in the ordinary way. The patient stood the operation well, and there was a free but diminishing discharge of clear fluid for several days. On the second night following the operation I was called to see her on account of urgent dyspnœa, and found her sitting up in bed deeply cyanosed. On examination, the left side of the thorax (except for Skodaic resonance in the first two spaces) was absolutely dull. Two pints of clear serum were withdrawn from the left pleural cavity, and this gave immediate relief. The patient then made an uninterrupted recovery. and has remained in perfect health ever since; in fact, Dr. Shone tells me she has been better since this illness than she ever was before in her life.

The second case was that of Mrs. L. A., sent to me by Dr. Strangman, of Orroroo, on September 13th, 1898, on account of peculiar, vague, abdominal pains. She looked ill, with a dirty complexion, and complained of pelvic pains. She was 30 years of age, had been married for nearly two years, and had had abdominal pains before her marriage. Her baby was nine months old, and since its birth the patient's abdomen had never recovered its former shape. She had menstruated twice since her confinement, and had become gradually thinner and suffered from night-sweats. There was no cough, and no physical signs could be detected in the thorax. The urine had a sp. gr. of 1030, with a minute trace of albumen, but no sugar. On abdominal palpation, the recti were separated, and allowed a ventral hernia to protrude. The abdomen was distinctly enlarged and contained a small quantity of free fluid, being tender to deep pressure, and a distinct, sensitive, sausage-shaped swelling could be felt along the brim of the left side of the pelvis. By vaginal examination the uterus was freely movable, but some suspicious nodules were felt in Douglas' pouch. The diagnosis lay between tubercular peritonitis and new growth. Dr. J. C. Verco saw her with me on September 17th, and we decided to watch her for a time. By October 25th the abdomen had increased three inches in circumference and the patient had lost 7 lb. in weight It was therefore decided to explore, as further nodules were detected and the patient was rapidly going downhill. She entered the private hospital, and on December 3rd I opened the abdomen and let out two pints of turbid fluid, and found the peritoneum exactly as in the previous case, except that the pelvic organs, and especially Douglas' pouch, were thickly studded with tubercles. A glass drainage tube was kept in for five days and the patient made an excellent recovery, and I last saw her in April, 1899, looking the very picture of health; she had gained one stone in weight, and had never felt better in her life. She had a good colour in her cheeks and an enormous appetite.

She died in January, 1901, from tubercular meningitis

The third case is that of Miss G. O'H., *æt.* 14 years, who was sent to me on April 29th 1899, by Dr. Singleton, of Glenelg. Her family history was good, but one cousin had died of phthisis. She complained of a swelling in the abdomen and a bad finger. She was a dull-complexioned child, but had always enjoyed good health till the present illness. In August, 1898, a slowly-forming, painless nodule appeared on the palmar surface of the left ring-finger over the terminal phalanx, This opened, and curdy pus escaped. She told me she had cut this finger with a dirty glass bottle some weeks before the nodule appeared.

A few weeks after the finger had commenced to discharge, the supra-condylar gland, on the left arm, gradually enlarged, and Dr. Singleton opened and scraped this, as well as the sore on the finger which had shown no signs of healing. Her present condition consisted of an unhealthy wound on the finger and two ulcers over the left internal condyle of the humerus, showing overhanging blue edges and a yellow sloughy floor. An enlarged gland was also felt in the left axilla. She had a short, troublesome cough, but no physical signs, except a slight comparative dulness at the left base, could be detected in the thorax. She had never menstruated, but the breasts and external genitalia were well developed. Her abdomen had commenced to swell one week before I saw her, was uniformly distended, tender in places, absolutely dull in the flanks and up to within three inches of the umbilicus. The dulness moved on turning the patient from side to side and gave a distinctly fluctuating thrill. The diagnosis being tubercular peritonitis, it was decided to open and drain the cœlom. Dr. G. Hayward having administered gas and ether, with the assistance of Dr. Poulton I made the usual laparotomy incision, and about eight pints of slightly turbid fluid escaped. The peritoneum was everywhere thickly studded with nodules and the great omentum was thickened and curled on itself.

A tube was inserted into the pouch of Douglas, the finger and supra-condylar gland were scraped, and the axillary gland excised. The evening temperature ran as high as 103° F., for about one week, and then the drainage tube was removed. The wounds in the arm and hand became healthy, and the abdomen gradually flattened. The microscope showed the glands and peritoneum to be tubercular, but no bacilli, as is generally the case, could be found in the escaped fluid, and the expectoration also was free from bacilli. The patient made a good convalescence, and has remained well ever since.

There can be no doubt that these were all examples of the ascitic variety of tubercular peritonitis, and the third case was verified by microscopical examination of the peritoneum and glands, but no bacilli of tubercle were found in the fluid. They very rarely have been discovered, although inoculations of the fluid, from similar cases, has given rise to tubercolosis in animals. It was mentioned that Osler thinks these cases are occasionally primary, whereas Watson Cheyne, in his Harveian lectures delivered in 1899, thinks they are always secondary to tubercle in some other part of the body. The first two cases quoted may bear out Osler's theory, but the third case is of interest from two points of view. Firstly, the girl may have inoculated her finger when she cut it with the glass bottle, and hence it may be a case of traumatic tuberculosis; and secondly it is difficult to understand how the bacillus of tubercle should affect the peritoneal cavity without apparently causing any trouble in the lungs detectable by physical signs or microscopical examination of the sputum.

I should think in the second case some of the bacilli were probably lying dormant in the abdominal lymphatic glands and, becoming active, started the tubercular meningitis which caused her death; but it is interesting to note that the lungs were never infected, only serous membranes.

Now, with regard to diagnosis. This may be extremely easy or attended with great difficulty Some cases are acute, and at first indistinguishable from typhoid fever, more especially if there is a rise of temperature; but, as a rule, you get a history of gradually increasing weakness, and if it be the ascitic variety, there is the slowly distending abdomen. There is not a great rise of temperature in most cases, and these patients appear to always get a dull, muddy complexion. If it be the fibroid variety, you get boggy swellings with a retracted abdomen, and often a continuously-low temperature. If it is the ulcerous variety, there is the liability to fœcal fistulæ often opening at the umbilicus and following the urachus or the obliterated hypogastric vessels, and occasionally there are symptoms pointing to intestinal obstruction, which have revealed tubercle on opening the abdomen, and in several cases this alone has led to a cure.

I would like to digress here to mention the case of a lady (Miss D., *æt.* 33) who was sent to me by Dr. Shone, of Strathalbyn, on July 18th of this year, for a rapidly-increasing ascites. The abdomen measured, on admission, 31 inches. There was no history of any former illness, only constant nervous strain from sickness amongst her relatives. On examination there were no physical signs in the lungs themselves, but there was fluid up to the angles of the scapulæ in both pleural cavities. The heart was normal, the urine was free from albumin, and nothing could be detected wrong with the liver; but the abdomen was distended and contained a very appreciable amount of free fluid in its cavity, with nothing to account for it. Her menstrual history was normal. On July 15th the abdomen had increased two inches in circumference, and she was seen in consultation by Dr. J. C. Verco, who corroborated the physical signs, but we were unable to say definitely if it was a case of tuberculosis or one of those rare cases described by Italian physicians as poliorromenitis, upon which Dr. Frederick Taylor, of Guy's Hospital, delivered a clinical lecture, printed in the *British Medical Journal* of December 15th, 1900. I was inclined myself to look upon it as tubercular, but Dr. Verco thought it was probably similar to Dr. Taylor's cases, and I think he will have something to say in his paper on this point. Anyway, it was decided to keep the patient under observation, and we gave her ʒi. doses of the syrup of the iodide of iron, with 5 grs. of iodide of potash added to each dose three times daily. Pigmentum iodi was applied each night to the surface of the abdomen and the lower part of the chest posteriorly. The patient remained in the private hospital for 14 days, and her temperature ran a normal or a subnormal course except for the first two evenings, when it ranged as high as 102° F. The fluid gradually disappeared from the pleuræ, and the abdomen gradually diminished and measured 29½ inches when she left for home. There was a normal menstruation whilst in the hospital. No cause for the fluid could be detected in any of her organs whilst under treatment, and. owing to the rapid improvement, we had no exploratory laparotomy to settle the diagnosis; but my own idea is that it was probably tubercular in origin, and I see the case which Dr. Taylor used as his text for poliorromenitis turned out *post mortem* to be tubercular.

There are three clinical varieties of tuberculosis of the peritoneum described, namely: the ordinary miliary tubercle of the peritoneum, which is acute, almost always attended by ascites (and was the condition found in my three cases), and is known as the ascitic tuberculous peritonitis; the second variety is where you get a fibrous tissue formed, and is termed the fibroid tuberculous peritonitis, and I think I have seen a case of this kind in the practice of my friend Dr. Poulton; the third variety is the ulcerous tuberculous peritonitis. It is more common in children, and you get doughy masses, often leading to an abscess, which frequently discharges curdy pus in the neighbourhood of the umbilicus; and, although I have never seen an example of this variety out here, I think Dr. Swift will bear me out that it is common enough at the Great Ormond Street Children's Hospital.

Now with regard to treatment, apparently you can get very good results with either medical or surgical means. In the *Lancet* for March 16th, 1901, Dr. Burney Yeo pleads hard for medical treatment, and records three most interesting and apparently desperate cases, all of which got well, two without a laparotomy, and in one the abdomen had been opened, but no improvement took place until the patient was handed over to the physicians. His treatment consists of well rubbing into the abdomen three times a day a liniment consisting of equal parts of cod-liver oil and iodoform ointment (1 in 10). He found that iodine was constantly eliminated in the secretions, and after bringing the alimentary system into as healthy a condition as possible, he gave a pill containing ½gr. of iodoform with ½ minim of creasote three times a day. I think all practitioners would prefer to give Dr. Yeo's treatment a trial for at least six weeks, for it has been shown by Watson Cheyne that in those cases in which surgical means have been undertaken too early a relapse frequently follows.

The history of the surgical treatment is interesting. It is just 39 years ago that Spencer Wells opened the abdomen with the idea of doing an ovariotomy, but found free fluid and a tubercular peritoneum. He drained off the fluid, closed the wound, and gave a hopeless prognosis, but the patient made an excellent recovery. Roersch found in 1895 that 75 per cent. of the cases so treated recover; but Watson Cheyne does not go quite so far as this. He thinks 50 per cent. can be put down as absolutely cured of their peritonitis, the prognosis being most favourable in the ascitic variety, next so in the fibro-adhesive form, and least of all in the ulcerous variety, this latter being due to fœcal infection of the cœlom from giving way of ulcers. Cheyne recommends in all acute cases which, after four or six weeks' treatment, show no sign of improvement, and in all chronic cases, whether there be fluid or not, which have lasted from four to six months, should be laparotomised. This gives you ample time to see if Burney Yeo's treatment is going to do any good. Cheyne also recommends that you should do absolutely nothing but open the abdominal cavity, drain off any fluid that may be present, and immediately sew up your wound. Those cases in which flushings, spongings, or applications of antiseptics have been resorted to, do no better than those which are merely opened and closed at once. I drained my three cases, but in future shall not do so, as the track of the tube is liable to become tuberculous. In conclusion there is the interesting and much-discussed question as to what brings about the cure. It has been generally thought to be due to the admission of daylight. Aspiration alone, or aspiration and pumping in of air, does no good; but let in air and light, and in a few months the peritoneum, on being re-opened, is quite free from any sign of tuberculosis.

There is really no satisfactory explanation for this. Watson Cheyne thinks it is the same as opening an acute abscess antiseptically when suppuration ceases, whatever that explanation may be, and I think I cannot do better than quote Cheyne's theory in his own words. His idea is that, in the case of acute suppuration, during the course of the disease, "an antitoxin is being formed in the blood, and that, as the result of opening the abscess, large quantities of serum are poured out and brought thus in contact with the bacteria in the wall of the abscess, and exert an anti-bacteric effect. On the other hand, if the operation is performed too early, the serum has not had time to acquire sufficient anti-bacteric property, and further, the same amount of serum is not poured out.

"It is possible that the conditions are somewhat similar in tuberculous peritonitis Where a large quantity of fluid is rapidly removed, serum is certain to be poured out to a considerable extent, and this serum may be more or less bactericidal. Even in dry peritonitis, the irritation of opening the abdomen and separating a number of adhesions leads also to an effusion of serum; and it may be that the reason why, in dry peritonitis, the result is not quite so good as in peritonitis with effusions, is that this serum does not act over the whole of the affected area, as it would do if adhesions were absent, or if the whole area were exposed to rapid increase in circulation when a large diffuse collection of fluid has been removed. Further, following on the weakness of the bacilli as the result of this anti-bacteric serum, which is poured out, we have exudation of cells, and increased fibrous formation and fibroid changes in and around the tubercles which complete their destruction."—(Harveian Lectures, *Lancet*, 1899).

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HEREDITY AND DISEASE.

By J. Flynn, M.B., Ch.M., R.U.I., Sydney.

(*Continued from Page 238, " Australasian Medical Gazette," June, 1901.*)

edity in Integu- itary. em.

When we reflect that a large number of skin diseases are symptomatic of or dependent on some general body condition, that a multitude of others are due to extraneous sources of irritation, mechanical, chemical and parasitic—are acquired—that the same weighty reasons that militate against the transmissibility of "acquired characters" in general apply to cutaneous acquirements. it is at once obvious that in tracing the influence of heredity on the integumentary system we are, to a large extent, to look outside both these groups. Notwithstanding this limitation, the influence of heredity on cutaneous ailments is far from unimportant. Indeed, it is probable that the transmission of innate structural peculiarities exercise a larger influence in the causation of skin disease than is generally believed. As we shall see, in some such structural peculiarities are the main if not the sole factor; in others they exercise considerable sway, and there are few, perhaps, in which they are altogether devoid of influence.

redity of: Ichthy- osis.

That structural peculiarities may be the main cause we have examples in ichthyosis and hypertrichiasis. To appreciate the structural defect in ichthyosis it is useful to recall a few facts in the development of the skin and its appendages. In all the higher vertebrates the external epiblast, which at first consists of a single layer of cells, becomes two layered. The cells of the outer layer become flattened and form the *epitrichium*, under which the hairs and sweat glands are developed. In the normal course of events this layer breaks down about the fourth month of intra-uterine life, and together with the secretions of the embryonic sebaceous glands enclosed beneath it, goes to form the vernix caseosa. In ichthyosis, however, the *epitrichium* does not break down, but persists even in extra-uterine life; there is an arrest of development of the hairs and sebaceous glands, the raising of the *epitrichium* does not occur, and it becomes adherent to the stratum corneum (Ohmann-Dumesnil). Hence the keratin-forming tendency of the disease, the absence of perspiration, the resulting dryness and fissuring of the affected portions of the epiderm. The relation of the horny tissue to the hairs in ichthyosis is well illustrated in cases of the disease in the lower animals, where the stiff hairs force their way out under the scales of horn, and give the animal an armadillo-like appearance. And, referring to the armadillo, is it not a curious coincidence that just as in the human embryo hairs and sweat glands are formed under a keratogenous layer of epiderm, so among one of the first orders of mammals (Edentata) the hair appears on the under surface of scales. So that in this ailment there would seem to be an attempt to resume a lost character. In other words, it is a reversion.

In ichthyosis, then, we have an innate structural peculiarity from an arrest of development, and like other malformations, such as hare-lip, it is transmitted sometimes for many generations. Here heredity may be direct, reversional, or collateral. The disease generally keeps to one sex in a family, which may be of the same or opposite sex to that of the affected parent. Thus Kaposi records an instance in which an ichthyotic mother transmitted her condition to her five sons, while her three daughters were exempt. Crocker met with a family in which each alternate girl, together with the eldest son, five in all, inherited from an ichthyotic father. Equally interesting were the cases described by Dr. Bennet some years ago in the *Australasian Medical Gazette*.

(b) Hyper-trichiasis

Generalised hypertrichiasis supplies another example of an innate structural peculiarity being the main cause of disease, and like ichthyosis is sometimes transmitted from parent to child. As Darwin states in his " Descent of Man," "cases have been recorded of persons born with their whole bodies and faces covered with fine long hairs, and this strange condition is strongly inherited, and is correlated with an abnormal condition of the teeth." In the oft-quoted case of the Burmese Shwe-Moan this excessive hairiness was observed in himself and his descendants for three generations. Kaposi relates an instance where father, son, and daughter were affected. On the authority of Miklucho-Maclay we know that the anomaly frequently occurs among some races of the South Sea Islands. The only other instance we shall refer to is that of the two Russians—Andrian Jeftichjew and his son Foedor—which have been made the subject of special publications. They were exhibited in England and the continent some years ago. In Paris they were called *les hommes chiens*, in London the dog-men, from the father's face bearing a striking resemblance to that of a Skye-terrier. In both father and son the entire face, except the ears and nose, was covered with a long soft hair. All the rest of the body was covered with hair an inch and a-half long, although finer and softer than that upon the face. A similar condition existed in a daughter, who was not exhibited. Both father and son were almost toothless. This deficiency of the teeth, accompanying what was in reality a deficiency of the hair, confirms Darwin's opinion that a constant correlation exists between the hair and the teeth. This condition is due to an arrest of development, since it represents the persisting lanugo of intra-uterine life abnormally long retained and developed to excess. The hairs followed exactly the same lines and whorls as those of the embryonal down, and their quality, fine and silky, resembled lanugo rather than fully developed hairs.

Albinism.

Other peculiarities of the skin, though not hereditary, show a family prevalence, such as albinism and Kaposi's disease These more commonly spread collaterally than descend vertically in a family. Universal albinism, that is where pigment is absent not only from the hair and skin but also from the iris and choroid not uncommonly affects many members in a family, at least where there are several children more than one are almost certain to be albinoes. Lesser relates an instance of a family where six of seven were albinoes. The writer knows of a family where four out of five children are albinoes, both parents having normal pigmentation. No instance is recorded where the anomaly was transmitted from albino parents to their descendants, but in a case referred to by Schlegel the grandfather was an albino. Albinism is more frequent among the negro than in the light-coloured races, just as pigment defects in general. Marey describes a family in which the father and mother were "fair emblems of the African race," and of their children three were black and three white, born in the following order:—Two black boys consecutively, two white boys, one black girl, one white boy. The structural defect in albinism is, according to some authorities, the total absence of the pigment-forming cells from the cutaneous papillæ or from the basal cells above them (the autochthonous basal rete cells of Kaposi), and contrasts with the condition in vitiligo where the pigment is duly formed, but owing to absence of transferring cells it cannot reach its usual destination.

Kaposi's disease.

Kaposi's disease, which is due to a congenital weakness of the skin to the blue and violet rays, shows a well marked family prevalence. Among Kaposi's ten cases it occurred once in two, and once in three brothers and sisters, and among forty-three cases observed by others it occurred six times in two, four times in three, and once in seven brothers and sisters. It also displays a tendency to select one sex. Thus in Ruder's series in a family of eight boys and five girls seven boys were affected and the rest of the family escaped. Twenty-six cases occurred in nine families, and it affected one sex only in seven of these families. When referring to "family disease" in the earlier portion of this paper it was stated that one reason why such diseases were prevalent in families and yet not usually transmissible was that they had undergone transmutation in transmission. In Kaposi's disease, although neither of the parents suffer precisely from this ailment, yet dermatologists of standing hold that there is always evidence of some derangement of the skin in the previous generation, and that a special tendency to freckles in the ancestors may be transmuted into Kaposi's malady in the offspring.

(e) Psoriasis.

Whatever may be the immediate determining factor in causing psoriasis it is admitted by all that a special predisposition is required for its development. And it is probable that this special predisposition is due to some innate structural defect, not of a gross nature or demonstrable, but yet always capable of making its presence felt. However completely psoriasis may disappear, recurrence is only a question of time; in the healthy psoriatic skin, a superficial irritation, a blister, friction, or even the rash of scarlet fever may precipitate an outbreak. Passing by the rival contentions of Robinson and Kaposi as to whether rete hyperplasia or inflammatory changes in the corium is the primary event, as neither view throws any light on the pathology of the ailment, we find that recent observations go to show that the disease is due to an innate peculiarity of the skin, a tissue proclivity by which its keratin-forming function is easily disturbed; that an anomaly of cornification—parakeratosis—constitutes the background of the picture. Andry states that the essential feature of the disease is the absence of eleidin together with defective cornification of the epidermic cells. That the disease is hereditary to a considerable extent is admitted on all hands. Several members of the same family are not uncommonly affected with psoriasis, and transmission may occur for several generations. An instance is recorded where five members of a family of seven suffered from the disease. Other cases are recorded where, after skipping a generation, it appeared in the next. McCall Anderson, who considers that the disease is due to an inherited idiosyncrasy in the skin itself, met a family composed of father, mother, two daughters, and one son, all of whom except the mother were affected. Some time ago the writer had a case of psoriasis in a boy whose father, aunt, and grandmother were similarly affected. Hutchinson is of opinion that the disease may sometimes undergo a transmutation in transmission, and he explains the absence of psoriasis in infants and early childhood by suggesting that when the "structural idiosyncrasy" is very strong it may manifest itself in a different form, and thus what was psoriasis in the parent may become icththyosis in the offspring.

(*f*) Eczema. Eczema in some cases is hereditary, but it is much less so than psoriasis, and in the great majority of cases there is no evidence of a hereditary predisposition. As Crocker says, heredity though often put forward has slight claims to be considered a cause of eczema. McCall Anderson, although admitting that heredity does not come into play in the majority of cases, yet has met with so many instances of parents and their children being affected that he cannot see his way to consider them as mere coincidences. A girl of sixteen was placed under the care of Drs. Veiel (*pere et fils*). Her father, a medical man, his mother and second daughter were also all affected with eczema. Similar examples might be multiplied. It is well known that a thin, dry skin, with deficiency of the subcutaneous fat, affords a congenial soil for the development of the disease, whether it be due to an organism or not. Now this abnormal dryness of the skin is sometimes a congenital anomaly, something closely akin to a mild form of ichthyosis. This anomaly may be, and frequently is, inherited, and in this sense only is it correct to say that eczema is hereditary, namely, in those cases in which it is associated with xeroderma.

(*g*) Xanthoma palpebrarum. Xanthoma palpebrarum exhibits a well marked family prevalence, and is sometimes hereditary. Hilton Fagge mentions an instance in which mother and daughter were affected, and the condition had existed for four generations in the family. In Church's series one male out of five, and of twelve females who had reached the age of forty, three of the first generation and two of the second had xanthoma It may skip a generation, as in the instance recorded by Hutchinson, where two brothers and their paternal grandmother were affected. Carini and Eichoff speak of an hereditary predisposition. The latter observed Xanthoderma in a child of two months whose great grandmother had suffered from the same disease. The condition is probably congenital in the sense that it probably arises from the remains of embryonal tissues. Touton regards the process as a veritable new growth composed of elements not normally present in the corium but arising from the proliferation of embryonal plasma cells, the xanthoma cells being the primary feature and the connective tissue growth secondary. So that here too we have an innate structural peculiarity and transmissible sometimes to more than one generation.

The relation between liver disturbance and xanthoma cannot be explained, though Kaposi considers it probable that the same process of nodular development attacks the liver and gives rise to jaundice. Whatever may be relation between the two conditions they are both hereditary. As Hutchinson says: "That form of liver disease which leads to xanthoma is hereditary there can be no doubt, for the disease frequently occurs in several relatives and in different generations."

(*h*) Fibr and kel Authentic cases of the heredity of fibroma and keloid are recorded. Thus Virchow has recorded a case of fibroma in which the patient suffering from it stated that his grandfather, father, brothers and sisters had similar tumours to his own. Atkinson relates an instance of a brother and sister being affected who stated that their father had them. Wagner relates a case where a father and son were affected. Hebra mentions a family where three sisters and the mother suffered from keloid, and similar instances are recorded by Wilson and Bryant.

That urticaria or rather a condition of the skin predisposing to it, is sometimes hereditary, is evident from the fact that several members of the same family have been prone to urticarious irritation, though not from the same cause. Thus an instance is recorded where the mother could not eat barley meal nor the son oatmeal without each being affected: if figs or wall-flowers touched the daughter's face they each produced a rash; a cousin of this family was still more susceptible. Trousseau, in his "Clinical Medicine," mentions similar instances.

(*i*) Pemphigus sometimes a "family disease." Pemphigus sometimes occurs as a "family disease," and is occasionally hereditary. Malcolm Morris treated three members of the same family affected with the disease. Hutchinson relates instances of two families in one of which five out of eight children were affected, and in the other four out of seven. In the second series there was no history of skin disease in former generations; but in the first series the mother had shown similar tendencies in early life. Cases such as these seem to indicate that congenital pemphigus is due to some inherent peculiarity in the organisation of the skin and not to any blood taint. Not only does pemphigus spread collaterally in a family, but it also sometimes descends vertically. Thus Kaposi gives an instance in which a young man, his mother, sister, maternal uncle, and half his children were affected. Hebra relates a still more striking instance of its heredity.

(i) Seborrhœic Eczema.

Even in diseases that are probably parasitic, innate peculiarities of the skin are not devoid of influence. Thus, take the case of seborrhœic eczema. This disease has been specially associated with the name of Unna, since to him we owe its separation from other kinds of eczematous dermatitis.

Now, although the exact nature of the process is still a matter of discussion—(Unna's views that the sudoriferous glands and not the sebaceous glands are the seat of the mischief has not found general acceptance, nor has his theory of sebotaxis been wholly endorsed; and if the flask-shaped bacilli and his morococei are generally present they are also found where there is no eczema, and in any case Sabourand contends vigorously that the flask bacillus is but a degenerative form of staphylococcus)—still Unna sees a means of reconciling the different dermatological schools by the influence of heredity on the dermal constitution. As he says, while its purely local and parasitic nature is evident from the good constitution of the patient, and rapid healing by purely topical and antiparasitic treatment, it is just in this disease that the importance of a general dermal constitution is demonstrated, and similarly the *influence of heredity* as well as definite nervous excitant are included in our knowledge. If the patients are children presented by parents who ply the physician with the question so often and so trippingly put, and so difficult to answer, "Why *their* children should have a skin disease?" it suffices in ninety cases out of a hundred in order to complete the family history to glance at the bald head of the father and the incipient rosacea of the mother, and from this to convince the astonished parents that the "milk of the wet nurse" is not to blame, but a *disposition of the skin inherited from themselves.*

ate peculiarities of e skin play impor- t part in ase.

Having now rapidly glanced over the influence of heredity in some of the diseases of the skin, we are struck with the important part played by peculiarities of the skin itself, both in the causation of these diseases and in their tendency to prevail in families. When we reflect that gross malformations such as webbed fingers, hare lip, coloboma of the iris may occur in different members of the same family, that such conditions as ichthyosis and hypertrichiasis, which are now known to be developmental arrests, exhibit a similar tendency, that tissue peculiarities—defects in the organisation of the skin—such as give rise to albinism and Kaposi's disease also show a well-marked family prevalence, may it not be probable that many other post-natal maladies, which are prone to run in families, are due to some inborn structural peculiarity although not demonstrable. In some of the skin diseases just referred to, congenital defects in the organisation of the integument are the sole cause; in others they have to await the supervening of some exciting circumstances to manifest their influence; and even in those which are due to an extraneous agent such as syphilis and ringworm innate peculiarities of the skin are not devoid of a modifying effect. All children are not equally susceptible to ringworm. As Alder Smith says, "a certain *unknown condition* of the skin is necessary for the growth of the fungus. Some children never take ringworm. . . . On some the fungus takes but slight hold and is easily destroyed; others, again, appear to be extremely susceptible." This *unknown condition* depends on peculiarity of structure of the infected region, and, like other idiosyncrasies, is frequently hereditarily transmitted.[1] Again, why should some of the secondary phenomena of syphilis, such as pemphigus, be so rare unless it is due to some condition of the skin rather than to the disease itself. Individuals are born with peculiarities of the skin not obvious at birth, but predetermined to become so when exposed to the ordinary wear and tear of life; such skins are born not made. A congenital susceptibility of the skin to the influence of light[2] produces many of the phases of Kaposi's disease. In some cases the defects of organisation may be structural, as in ichthyosis; in others these defects may be inappreciable except in their effects, by rendering their possessors liable to functional disturbance from causes of a trivial nature. One individual may be covered with an eruption from a few grains of iodide of potash; another may take twenty times that amount without any skin manifestation. The same idiosyncrasy applies to other drugs and to articles of diet. The human skin is then a complex organ

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(1) That a condition of the soil favourable for the growth of fungi is transmitted is evident from cases such as the following, reported by Dr. Stewart in *The British and Medico-Chirurgical Review*:—A single man, aged 24, had well-marked *pityriasis versicolor*, which was first observed when he was 14 years of age. His brother had it at 20 years of age. Here some one may say: The disease is contagious, and prolonged contact communicated it from one brother to another. Yes, but the father, paternal uncles, paternal grandfather, and seven male cousins on the paternal side had all been similarly affected. The disease appeared in all of them at puberty and disappeared about the age of 40 or 45 years; while the females of the family, though not suffering from it themselves, had transmitted the predisposition to their male children. It would seem, then, that a skin congenial to the *microsporon furfur* may run in families.

(2) According to Unna, there is a special susceptibility to chemical light rays, the deposit of pigment being an effort of the skin to minimise the effect of light, and the pigment by its action upon the epithelial cells, causes the abnormal growth of epithelium characteristic of the final stages of the disease.

differently organised, differently endowed, and with different innate peculiarities in different individuals. Nowhere have we such striking proof of this than when we see different individuals of the same family becoming in turn affected with the same local change.

Acne an instance of the effects of *remote* ancestral tendencies of the skin.

There remains one other skin disease which seems to have an ancestral basis. I refer to acne. It is admitted on all hands that the immediate cause of acne is the obstruction and inflammation of the sebaceous glands; but if we ask the cause of this obstruction the answers even of distinguished dermatologists are far from satisfactory. To say that acne depends on torpidity of the capillary circulation or on a general want of cutaneous activity or that it is connected with a disordered state of the cutaneous nerves which interferes with the vascular action of the skin; all these are explanations which do not explain.

If we would rightly interpret the phenomena of acne we must regard it as a reversive disturbance, the result of an attempt to return to ancestral conditions. In this connection it is well to recall the fact that comparative biologists are agreed (a) that the sebaceous glands[3] were originally *exclusively* adjuncts or appendages of hair follicles; (b) that a general though irregular suppression of hair growth has taken place in man; (c) that nowhere is this hair-suppression complete so that the nakedness of any region is a relative term depending on the scarcity and fineness of the hairs covering it.

The suppression of the sebaceous system as a broad rule is in proportion to that of the hairs, though far less complete. The sebaceous glands originally the adjuncts of hair follicles—the appendages of hairs now suppressed have themselves undergone great modification. On most parts of the body they have been reduced in number and in size. In the female this reduction has been carried to a greater degree. Though hair growth has ceased in many parts, yet functionless hair follicles still exist. The ducts of some sebaceous glands no longer open into hair follicles but on the surface of the skin while those of others are yet received into the necks of follicles no longer functional. The suppression of hair growth has been both irregular and incomplete—irregular, as shown by the fact that on the scalp, the armpits and the genitals no such tendency has yet been observed, and that on the face and certain parts of the trunk hair growth varies with sex and race—incomplete, as will be evident from an examination with a weak lens, or even with the naked eye, or, perhaps, best of all, by exposing a particular region to a cold draught, and watching the development of "goose skin," which is nothing more than an attempt to erect our hairy coat, as other animals do when chilled, the phenomena in all being due to the contraction of the *arrectores pilorum*

Turning from these reflections on hair suppression and the resulting modification of the sebaceous system to the consideration of acne, we note (a) that being a disease of sebaceous glands it is in reality a disease of aborted or atrophied hair follicles; (b) that it makes its first appearance either at puberty—a period when there is a special tension on portions of the hair coat, or later at the menopause in females—a time when the facial lanugo released from the restraining influence of the feminine element develops into coarser hair, especially in multiparæ and old maids. At puberty a developmental impulse to set up in the hair follicles of certain regions, by which they become covered with hair, and in such a manner as to constitute one of our most striking secondary sexual characters. Now it would be surpassing strange if this *nisus* remained limited to the hairy regions. What more natural than that this growth impulse should radiate into neighbouring tracts and make its influence felt in the abortive hair follicles there located, causing an increased flow of blood in some; in others stimulating their lubricating gland to increased function, that is increased production of sebum; in others some, exciting their stunted hair-shaft to abortive effects at growth and thus irritating the wall of the follicle itself. In the majority of cases it is quite true that this growth-impulse spends itself in the increased production of functionless sebum as seen in the ordinary comedo. And this tendency to "pimples" at puberty is so widespread that we are almost to consider it as a natural process. Whether this shall develop into acne depends on the endowment of the individual as regards the number and size of the sebaceous glands, on the character of the epidermis, whether this be thin and easily irritated or whether there is a tendency to superficial hyperkeratosis, and thus to occlusion of the follicles. If neither sebum nor stunted hair can escape through the hair follicle, the gland ducts, becoming distended, afford a congenital soil for Unnas "fat-loving and fat-consuming" bacillus; inflammatory action is set up, and we have an acne pustule. The disturbance underlying acne is always confined to functionless hair follicles. It never affects those regions of the body that are continually hair-covered such as

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(3) The sebaceous glands are developed as outgrowths from the dermic layer of the root-sheaths of the hair. At a later stage h is seen to form a flask-shaped appendage to the hair follicle.

the scalp or the eyebrows, and rarely those regions which are clothed at puberty with hair, such as the pubes axillæ and bearded portions of face; in those regions the developmental nisus finds a normal groove and develops a normal product. Again, in none of the other mammals with their hair-covered integument does acne or any cognate condition occur, though other skin diseases such as eczema, under the various forms of "manges," "scalds," "chafes," "greases," is extremely common in domestic animals. That a disease of the hair follicles should be extremely rare or absent in animals, where no denudation has occurred, and common in man where denudation has taken place, and in him most common in the most completely denuded portion of all the face (hairiness of the arms and chest is three and a-half times as common as that of the face), seems to point to denudation as playing the chief part in the causation of acne.

But how account for the occurrence of acne in the female. They have no beards. True, but then their fathers had, and we know that secondary sexual characters are transmissible in both sexes. Though the nisus to hair growth rarely receives expression in the female, it exists in her potentially, and hence it is that the abortive hair follicles of the female face sympathise with the pubertal changes and develop acne, and later on, towards the wane of sexual life, when the restraining influence of the feminine element ceases, becomes liable to a second attack.

(*To be continued.*)

NOTES ON DIPHTHERIA.

By E. Ken Herring, M.R.C.S., L.R.C.P.,
Shepparton, Victoria.

Diphtheria may be summed up at the present time as Klebs-Löffler bacillus and antitoxin, and to write anything about the disease, apart from these, lays one open to the supercilious smile of all advanced students. However, I shall risk that to give a few points from a general practitioner's view. The bacillus and the antitoxin are ornamental and useful, but are they necessary? The country physician, as the country surgeon, has to be contented with a great deal less than his ideal, and has to confine himself to necessities, and especially so in such diseases as diphtheria, which generally shows itself among his lodge or charity patients. He has not, as a rule, the convenient appliances for taking and making specimens of the bacillus; he may not trust his specimen when he gets it, or he may not trust his recognition of it under the microscope when he sees it. Can he do without it? Fortunately for him, and also for the student of to-day, the more modern of our text-books are including all membraneous inflammations of fauces, pharynx and larynx under the term diphtheria, and such terms as membranous croup, membranous laryingitis and cynanche trachealis are dying out. The practitioner, therefore, may honestly avoid the time and trouble and expense of getting a definite diagnosis of the bacillus from an expert, and yet, without injustice to the statistics, report all his membranous inflammations as diphtheria. This may be called careless diagnosis but as absolute diagnosis can only be made by finding the bacillus, I doubt if any less care will be taken now in noting the infection, knee-jerk, albuminuria, swollen glands, and other signs that we have been accustomed to look for to prove our diagnosis than used to be taken before the bacillus was known. From a country practitioner's point of view, then, the bacillus is unnecessary—that is to say, the pursuing and finding of him is.

How about antitoxin? If one has a half-dozen or so of lodge or charity patients to treat, and antitoxin at 3s. 6d. a dose is used, it becomes a costly matter to the doctor, who has to pay for the drug. My experience shows me that one can get along very well without much antitoxin—at least here in the country in Australia. My experience of diphtheria here may be out of the ordinary, but I know other doctors from the old country who say the same, and it is this, that Australian diphtheria is very mild compared with the English. Laryngeal diphtheria is rare here, and those distressing cases, which one frequently used to see in the old country, where the membrane spreads steadily from the pharynx to larynx, in spite of all treatment, are unknown to me here. Laryngeal diphtheria is secondary to pharyngeal, as we all know, but though we get plenty of pharyngeal we very seldom see a laryngeal case. I wish to note this as a reason for not using antitoxin, or at least for using less expensive treatment first. The treatment I have used for some time very successfully is resorcin swabbing. It is nothing new, but as I believe it is little used I think it cannot be known aright. I use a solution of a drachm to the ounce of water applied warm with a brush or swab by a nurse or other strong-minded person. The strength sometimes needs to be doubled, but rarely if the solution is thoroughly applied—hence the strong-minded person—and is warm. Carbolised steam in the room and iron by the mouth may help the resorcin, but my faith is in it alone, though I usually add the other. On referring to my notebook I find I have treated nearly fifty cases in the last three years in this way without a failure. Antitoxin has been required in three cases only, and two of these required intubation, and one of these again tracheotomy, as he could not retain the tube. All recovered. One of these cases was a baby three weeks old, who could, of course, not be painted. But children two years and a half and three years old take the painting well if treated very gently and kindly and firmly at first. Large patches of membrane the size of a shilling or a florin will usually entirely disappear in two to four days under resorcin, and with antitoxin and an intubation apparatus in reserve one need never be much alarmed. I may add here that I always use the same resorcin paint for all cases of follicular tonsilitis with invariable result.

Now a note about infection. Infection proves the diagnosis practically, and should, therefore, always be inquired into It often proves also very interesting. In August, 1899, there were three cases in a certain house in Shepparton, under another doctor. Patients of mine lived next door, and presently I was called in to a girl of nine years with a large patch on each tonsil, which cleared up in three days, or on August 13th. The patient had been isolated at once, and the house and clothes washed with carbolic water and well aired. On August 22nd a brother of five had a patch on one tonsil, and the house and clothes were again cleansed, and this patient put in with his sister. On September 5th a brother aged seven showed patches. On this day also I was called to see a boy aged seven, living quite at the other end of the town. He showed patches on each tonsil, and I found that he had up till August 9th sat with the previous boy at school, but from then till September 5th had not been near any diphtheria, the cases already mentioned being, so far as the doctors knew, the only ones then in the town. This last case was sent at once to Mooroopna Hospital, and his home was carbolised and aired. The patient returned from the hospital, where he had antitoxin injected, in 16 days with paralysis of soft palate; 4 days later a brother aged nine showed patches, and next day a brother aged six, and finally a baby three weeks old showed the membrane. I found that the boys had a mouth-organ between them, which, of course, the brother from the hospital used also when he came back. This year I found a mouth-organ again to blame. On June 27th a boy was brought in from the country twenty-three miles because of his weakness and changed voice. The only thing I could find wrong was soft palate paralysis, and I found that the family of five children and mother had had, or were having, sore throats with whitish patches in them, and that other families around had similar trouble. A mouth-organ was in the happy possession of the family mentioned, and was used by four of the five children. On July 1st, four days later, a boy was brought in to me from nine miles out with membrane on the whole of the back of pharynx, tonsils and uvula. This boy was a cousin of the other, but lived fifteen miles apart. I found that he had just returned from a visit to his cousins, where he had used the family mouth-organ. Other interesting records of infection have been noted, but one could hardly wish for anything more clearly defined than mouth-organs.

MATERIA MEDICA.

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HÆMATURIA FOLLOWING USE OF UROTROPINE.

By J. Albert Goldsmid, M.B. Syd., Murwillumbah, N.S.W.

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The two following cases may be of interest in the above connection. In both I believe the source of the blood to have been the bladder :—

Case I.

W. H., aged 53, boilermaker, corpulent, and of gouty diathesis, was troubled with headache. dyspnœa and vomiting. His pulse was of high tension and his urine deposited considerable quantities of uric acid crystals (about a saltspoonful in the twenty-four hours). He was put on urotropine gr. vii. ss., t.d.s After four days he complained of uneasiness above the pubes and his urine was bloody. The uric acid had decreased in quantity and his symptoms had alleviated. The urotropine was stopped, but at the end of forty-eight hours the uric acid was present in his urine in the same amount as at first, and his general symptoms (headache, dyspnœa, etc.) were worse than they had been since the urotropine was used. This drug was therefore resumed in doses of gr. v., t.d.s., and in the less amount was well borne and was followed by abolition both of the uric acid in his urine and his general symptoms (headache, etc.).

Case II.

X.Y., aged 41, a clerk, was under my care for lumbago, which proved very obstinate, and in order to decide the question of presence of renal calculus, he visited a neighbouring city and afterwards Sydney. The result was all the medical men he consulted agreed that no calculus was present, but diagnosed "uric acid diathesis." While away he was given gr. iii., urotropine, t.d.s., which was well borne. Then ten days later the dose was increased to gr. ix., t.d.s., and in four days hæmaturia occurred. The drug was immediately stopped and was followed by cessation of the bleeding. The patient never had hæmaturia before or since.

Finally, in respect to this drug, I may say that besides cases of uric acid diathesis, I have found it of great value in foul alkaline urines which have resisted boracic acid, ammonium benzoate, etc.; but it should be used in small doses and increased gradually. If hæmaturia occurs, a diminution of the dose will be found effectual without entirely discontinuing the drug.

PHOTOTHERAPY.—A REPLY TO DR. PINNOCK'S REMARKS THEREON.

By A. E. Martin, M.D., F.R.C.S., Ballarat, Victoria.

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On page 321 of the August number of the *Australasian Medical Gazette* appeared some remarks on phototherapy by Dr. Pinnock. Briefly told, these remarks may be described as being composed of two portions, (1) a censure of some unnamed member of the British Medical Association, and (2) an attempt to belittle the value of what is commonly known as Finsen's light treatment As the censure is given first place in the remarks, it would seem that this was the more prominent thought in the mind of the writer of the paper.

As I am the unnamed member who is the subject of Dr. Pinnock's censure, I ask for space to reply to his remarks. About the personal question I shall take up very little of your space This question is, I think, of much less importance than that of the value or otherwise of Finsen's light treatment. It is important that the profession should look at both sides when a question of treatment is under discussion, and in Dr. Pinnock's remarks only one side is considered.

Dr. Pinnock complains of the sensational heading in the daily press. This is not my concern. I have never tried to direct the editor of a newspaper as to how he shall set out his paper. The real question is this: Should such an article appear in the daily press at all? That may be a matter for individual opinion, but, seeing that the treatment had already been described in the daily press of England, of Australia, in short of the civilised world, and that it had been the subject of a full-page illustration in the *Graphic*, my opinion is that it is of quite sufficient public interest to warrant the public of Victoria being informed that the treatment is now carried on in this State In passing I would remark that, in the press accounts, nothing appeared which could be construed into laudation of any individual's special skill or good qualities of any sort—merely a description of the treatment such as had already appeared in numerous papers at home The second point was that no member of the branch had been asked to see the treatment carried out. In that the writer was in error. Some half-dozen members whom I had met had been asked. and I had decided to do as I did, ask all on the first possible opportunity, viz., the first meeting of the Branch after receiving the apparatus.

The third objection is to the treatment being described as "new." And yet the objector himself claims that the method is "still in the experimental stage."

The fourth, and what is described as the "most important" point, is that the lay newspaper reader will wonder what our local medical men have been doing to allow such a treatment to be suggested to a layman by a Moonee Ponds practitioner. I feel sure that on this "most important" point Dr. Pinnock's mind may rest at ease, for the average newspaper reader is not so small-minded as to wonder anything of the sort. In any case the plain fact remains that it was through the suggestion of Dr. Martell, of Moonee Ponds, that the apparatus is in Ballarat to-day. In regard to only "one solitary member of the profession in Ballarat being deemed worthy of conducting it," no suggestion of this sort was ever made or even thought of.

Dr. Pinnock appears to be very anxious that it should be known that he has been watching the literature on the subject for the last year or two, and that he decided that it would be unwise to go to any expense in the matter. All that this indicates is that he failed to appreciate the weight of the balance of evidence.

And now, what are the reasons given for condemning the light treatment? In the first place most of the drawbacks originally described in the *British Medical Journal* are quoted, but the advantages of the treatment described in the very same articles in that journal are not stated. The principal disadvantage mentioned is that, owing to position, certain parts cannot be satisfactorily treated by this method. What of this? Is that any reason for not treating the great majority of cases which can be? That the X-rays, combined with the Finsen-light, are of great use in these cases, is freely stated by all workers in this field at home. Here I must mention a serious misstatement in Dr. Pinnock's article. We are there referred to a communication by Dr. Sequeira in the *British Medical Journal*, February 9th, 1901. for an "admission that the X-ray treatment has a range of effectiveness in lupus which phototherapy cannot reach." This is not so, and I myself informed Dr. Pinnock of this mistake. That communication deals with rodent ulcer, and not with lupus. But in spite of the mistake being pointed out to him, Dr. Pinnock has seen fit to publish it without rectification.

I will now finish with the article. Owing to some experiments of his own, or Mr. Treloar's, doubt is thrown on the question as to whether chemical rays will destroy micro-organisms. Apparently in these experiments the micro-organisms were not destroyed. But the negative results in these experiments cannot do away with the positive results of such men as Finsen, Downes and Blunt, Newman and others We are then told that "while boiling water will in time destroy the micro-organisms, yet the spores are unaffected." I can only suppose that this statement was inserted to show that Dr. Pinnock and Mr. Treloar have views of their own. Their views, however, do not agree with those of Klein ("Micro-organisms and Disease," 1896, page 95), Newman ("Bacteria," 1900, page 32), and indeed most if not all bacteriologists. A last and great point is made of the toxins. Dr. Pinnock presumes that, if the micro-organisms be really destroyed, "their dissolution would be marked by the liberation of their toxins." I fail to understand from this what Dr. Pinnock's ideas are as to the nature of toxins. Apparently he regards them as being a sort of *post mortem* product of micro-organisms. Klein and Newman regard them as products of the life processes of micro-organisms, and not as after-death products. Even "Erichsen," a work on general surgery with which one would have supposed a general practitioner to be acquainted, describes toxines as being "chemical products developed during the growth of the micro-organisms." So that, after all, the toxin point is not so strong. From the patient's standpoint there is nothing in it, as he does not mind about toxins so long as he is cured of his lupus and remains without relapse. And now to close with some evidence on these two points.

Finsen reports up to September, 1899, the treatment of 355 cases. In 350 of these he states that the treatment was continued "till the last nodule of the lupus-patch had disappeared." He says that the result is "so certain and so constant," that he even suspects a mistake of diagnosis when the method appears to be ineffective.

Morris and Dore state, "In all the cases we have treated the improvement has been marked and uniform." They sum up the advantages of the treatment as: reliability, painlessness, excellent cosmetic results and less liability to relapse.

The *British Medical Journal*, June 6, 1900, recalls the fact that Finsen has been treating the disease for three years, and that "in one case at least there has been no recurrence of the disease after a two years' interval succeeding the cessation of the treatment." Surely these advantages outweigh the disadvantages mentioned. I would ask, too, whether, with the above results, we can fairly describe the treatment as "still in the experimental stage?"

In a letter to the *Times*, June 14, 1901, the Chairman of the London Hospital says, "We have given up using the Röntgen rays (in the treatment of lupus) in the majority of cases at the London Hospital, as we have found, from actual experience, that the Finsen treatment is far superior, and is, therefore, worth the greater expense and the infinitely greater trouble." This, on the comparative value of the Röntgen rays and Finsen light, from an institution where both methods have been used, is of certainly greater weight than the opinion to the contrary of a gentleman who has certainly not tried both and possibly neither method.

At present about 150 cases a day are being treated at Copenhagen, and over 100 daily at the London Hospital. In so expensive a method these facts would indicate that in Europe, at least, the treatment is thought to have passed the experimental stage.

In closing I would just refer to my own case. This is now showing that it is going to follow the example of the cases in Europe—the nodules are getting less and less, and epithelium is steadily spreading over the formerly diseased area. I may give a more detailed account in a later number of the *Gazette*, but this communication is already long enough.

CIVIL AMBULANCE AND TRANSPORT BRIGADE.

A Record Month's Work.

The following is the report of ambulance work conducted by the Civil Ambulance and Transport Brigade during the month of August last. Wharf and shipboard accidents attended, 13 cases; Government, 39 cases; tram-car, vehicular, and other street accidents, 22; at the sports, 13; factory accidents and casualties from buildings, 14; accidents in dwelling-houses, 7; medical and surgical ambulance transports on practitioners' certificates, 134; treated at the ambulance stations according to first-aid principles, 34 cases. Of these, 61 persons were conveyed to Sydney Hospital, 28 to Prince Alfred Hospital, and others to Lewisham Hospital, St. Vincent's Hospital, Balmain, Marrickville, North Sydney, and Manly Cottage Hospitals, and 12 to private hospitals. Seventeen cases occurred on Sundays and 56 were female cases. Eighty-three sufferers were conveyed in the horse ambulance making 1179 sick and injured persons who have now used this carriage. Besides the usual city work, sufferers were conveyed to hospitals from Waverley, Manly, Five Dock, Croydon, Ashfield, Rozelle, Lindfield, Petersham, Burwood, Balmain, Concord, Mosman, Rookwood, Neutral Bay, St. Peters, Canterbury, and Belmore. The aggregate distance travelled on transport service is computed at 897 miles. The number of cases attended and the mileage travelled during day and night and in all weathers constitutes a greater amount of ambulance service than ever before accomplished in one month in the history of the Brigade.

ACUTE TORSION OF THE PEDICLE AS THE FIRST SYMPTOM OF OVARIAN TUMOUR.

By C. S. Hawkes, M.R.C.S. Eng., etc., Brisbane, Queensland.

Read before the Queensland Branch of the British Medical Association.

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As is well-known, an ovarian tumour may be present and even grow to a fair size without its presence being suspected. Various symptoms, such as increase in size of the abdomen, the results of pressure on neighbouring organs, or other symptoms may then lead to an examination, when the presence of a tumour is demonstrated. Amongst the rarer conditions that may draw attention to an unsuspected growth is an acute torsion of its pedicle, with the train of symptoms and sequelæ associated with this accident.

If the twist is at all severe, the effect on the condition of the patient is correspondingly serious. Very probably slight twists are responsible for various minor pains and tenderness which patients with ovarian growths experience from time to time, but the train of symptoms associated with an acute twist is such as to draw attention in a most unmistakeable manner to the fact, and that there is some serious intra-abdominal lesion.

Though, as we shall see, there are several conditions from which an acute pedicle twist has to be differentiated clinically, yet there are certain symptoms, which, as a whole, are fairly characteristic of an attack, and which, taken with the co-existing physical signs, render it possible for an accurate diagnosis to be made in the greater number of cases. As has been pointed out by Bland Sutton, the symptoms as a rule are those of an acute intestinal obstruction, less the stercoraceous vomiting, that is to say, there is severe shock of abdominal origin.

The attack comes on suddenly; sometimes after exertion; sometimes while resting in bed. A sudden severe pain is first noticed, localised as a rule to the lower half of the abdomen on the side of the tumour. The pain is often intense, sometimes as bad as a severe renal colic, and soon radiates more or less over the whole of the lower half of the abdomen. The patient then gets faint and collapsed, with cold clammy skin; quick, small, feeble pulse; frequent shallow respiration, and subnormal temperature. Sometimes the severity of the pain is partly marked by the accompanying faintness which rarely, however, causes complete loss of consciousness. Occasionally there is vomiting, and it is interesting clinically that this usually starts soon after the first onset of the attack, and lessens later, not as in an intestinal obstruction, coming on as a late symptom and increasing in severity. The urinary secretion is much lessened for a time, or even there may be complete anuria for the first few hours after the onset of an attack.

On examining the abdomen it is tender all over the lower half, but more so on the side of the tumour; some distention of the abdomen soon comes on. In one of my cases it was well marked within an hour of the onset; this with the tenderness makes examination difficult, and unless the tumour is a large one it is not always possible to be certain of its presence at a first examination.

Summarised shortly then we get pain usually more or less localised to the affected side, with tenderness and some distention of the abdomen, a cold, moist skin, quick feeble pulse, subnormal temperature, lessened urinary secretion and perhaps vomiting, together with the anxious pinched expression and mental hebetude characteristic of collapse.

When these symptoms have somewhat passed off the secondary results of the torsion may begin to manifest themselves. The bursting of the pedicle may have caused a rupture of a blood vessel, either simply into the tumour itself, or the hæmatoma in the tumour may burst into the abdominal cavity, forming one cause, though a rare one, of hæmatocele. If the twist of the pedicle is tight enough to cut off the blood supply it may cause local death and necrosis of the tumour, the necrotic tissue may then be infected with micro-organisms derived from the intestines, may suppurate, or even cause septicæmia. More frequently the tumour contracts adhesions with bowel or omentum in its neighbourhood, or sets up a more or less localised peritonitis of varying intensity. These conditions may be of sufficient severity to cause death, or associated with them may be a fatal and intractable intestinal paralysis, an exaggeration of the paresis causing the abdominal distentions noticed at the beginning of nearly all attacks.

The cases that have come under my care have been five in number; briefly their history is as follows:—

Case 1.—K.H., *æt* 27, widow, had never been pregnant. She was a stout, well-developed woman, and believed herself to be in as good health as usual, except that for some months she had noticed that she had leucorrhœa. Shortly after going to bed one night she woke up with intense pain in the right side of the lower half of the abdomen, and quickly became very cold, collapsed, and faint. I saw her about half an hour after the onset of the attack. She was then very collapsed, with cold, clammy skin, feeble, quick pulse, quickened respirations and subnormal temperature. The abdomen was a little full, very tender on the right side, but no spot markedly tender to touch. Owing to the tenderness a bimanual examination was unsatisfactory, but some ill-defined mass could be made out behind, and to the right of the uterus, which was anteverted and normal in size.

Her last menses were said to have been as usual, and ceased ten days before. No red uterine discharge was present, nor had any been noticed since they stopped. With free stimulation by whisky and strychnine she rallied fairly quickly, but there was complete anuria for about twelve hours. Then a few drains of urine, loaded with urates, were passed, and in about twenty-four hours the urinary secretion was established; the urine contained neither blood, albumin, nor other abnormality. The bowels were opened easily and freely by enema the morning after the attack, the sudden onset of which, and intense collapse, suggested a ruptured tubal gestation perhaps more than anything else, but the possibility of pregnancy was denied, neither was there any uterine bleeding. As operation was impossible where she was, and she appeared too ill to move, a few days' delay was inevitable. During this time her temperature rose from subnormal the first twenty-four hours to 99, 100 and 101°, the pulse remaining at from 114 to 120. The abdomen kept tender and swollen; a distinct tumour could be felt with some difficulty to the right of the uterus. As soon as possible she was moved into the Lady Norman Hospital, where I opened the abdomen on August 25th, 1898, and found then a solid ovarian tumour on the right side, with a tightly-twisted pedicle. The tumour was adherent to gut and omentum by many recent adhesions. Owing to the tight twisting of the pedicle cutting off the blood supply, it looked a dirty greyish colour, except in one part, where a hæmorrhage had taken place into the growth. The tumour was oval and measured three and a half inches across its long axis. It was so necrotic that a satisfactory determination of its nature was impossible. The patient stood the operation fairly well, the temperature varied from 99 to 101° for a few days, the pulse from 88 to 100; both became normal in about a fortnight. I saw the patient at intervals up to March, 1900, when she still remained in good health. In this case though there was some unavoidable delay in operating, owing to her surroundings and the difficulty of moving her; yet I do not think she was any the worse for it. The intense collapse would have rendered a cœliotomy very dangerous, if not fatal; while, though the delay meant a certain degree of peritonitis, yet the consequent adhesions were not of sufficient denseness to materially add to the difficulty of operation.

CASE 2.—B. C., *æt.* 38, married, four children, last, sixteen months previous, got sudden severe pain in the abdomen, chiefly in the lower half of the left side. It was tender to touch and somewhat distended, and the skin cold and moist. When I saw her the pulse was slow and feeble, varying from 65 to 68; the temperature in the mouth was 97·4°; there was no vomiting; very little urine was passed for the first twelve hours. On examination a tumour could be felt on the left side of the uterus. Previous to this attack she had believed herself to be in good health, with the exception of a similar, more severe attack, three months earlier, which came on suddenly and lasted about twenty-four hours.

Menstruation had been regular; the last period ended nine days before the attack; she described the loss as being much more profuse than usual. She was moved into the Lady Norman Hospital, the temperature on the evening of admission being 97.6°, pulse 68. I opened the abdomen twenty-four hours later on September 13th, 1898, and found an ovarian cystoma the size of a large orange, attached by a long pedicle, with several twists in it, but no adhesions.

The after-history of the case was uneventful; the temperature never rose above 98.6°; the pulse kept at 72 to 76. When last heard of some months later she was in her usual good health.

CASE 3.—M. F., unmarried, *æt* 30, a stout woman in good health till November, 1889, when she had an attack of sudden severe pain in the right side of the abdomen, which became swollen and painful She was told she had an attack of "typhlitis," for which the abdomen was poulticed, and she was kept in bed for some days. She kept well till September, 1900, when she woke up one morning with a severe pain in the right side of the abdomen. When I saw her she was not much collapsed, had vomited once, her pulse was 100 and temperature 98°; the abdomen was distinctly distended and very painful and tender, especially on the right side; the quantity of urine was much diminished. A tumour could be felt without difficulty through the abdominal walls, and the day after the attack could be moved easily from side to side in the abdomen. She was removed to St. Claire Private Hospital, and on September 22nd, 1900, was etherised by Dr. Brockway. On opening the abdomen I found a tumour the size of a large cocoanut, which proved to be a dermoid of the right ovary. with a thin pedicle about four inches long tightly twisted from right to left; five distinct twists could be distinguished. The pedicle was tied and cut, but apparently any artery in it was already firmly closed by the torsion. The tumour had many fine and long adhesions to the omentum, but none to the bowel. It was full of thick fatty material and hair. The subsequent course of the case was uneventful. Since the operation there has been no further attacks of pain, and when last seen in March of this year was in perfect health.

CASE 4.—M. B., *æt* 28, married, three children. In August, 1900, she had a sudden attack of intense pain in the left side of the abdomen. It came on while she was hanging up some clothes, and was severe enough to cause her to fall to the ground and render her unable to move for some minutes. She was at this time seven and a half months pregnant. I saw her very shortly after; she was then cold and collapsed, and had vomited; the pulse was 114 small and weak, temperature 97·6° in the mouth. The abdomen was tender on the left side, but no distinct tumour could be felt apart from the pregnant uterus The attack passed off in about twelve hours. The urine during the attack was lessened, but not more so than could be accounted for by the lessened ingestion of fluids. Tenderness of the left side of the abdomen persisted for three days, but I could not satisfy myself that a tumour could be felt No further attack occurred during pregnancy. After the confinement a soft cyst could be felt either of or close to the left ovary. In December, 1900, she again had a severe attack of pain quite as intense as a bad renal colic; the pain was more localised than in the previous attack, to just inside and below the left anterior superior spine; it lasted severely for about six hours in spite of morphia; she vomited several times during the attack. There was no anuria and but slight distention of the abdomen; tenderness was quite limited to the affected side. The bowels were opened freely by enema during the attack, but without any influence on the pain. As soon as her child was weaned she was admitted to St. Claire Private Hospital, and on February 4th, 1901, was etherised by Dr.

Brockway. I opened the abdomen and found a left-sided parovarian cyst about three inches in diameter with a pedicle about two inches long. This was ligatured and the cyst removed. The uterus, which was retroverted, was anteverted and fixed by Kelly's method The cyst was free from adhesions to surrounding organs, and was practically non-vascular. The ovaries were normal. The after history of the case was uneventful, and up to the present time she has remained in good health and free from pain.

CASE 5.—G. H., *æt.* 28, married, no pregnancy. She was seen by me on May 30th, 1901. On the morning of this day she woke at 5 a.m. with intense pain just below and internal to the right anterior superior spine, which quickly spread over the right lower quadrant of the abdomen. She vomited frequently at the onset of the attack. When I saw her the skin was cold and she was shivering, the pulse 120, small and feeble, temperature 98°. The abdomen was tender on the right side and somewhat distended; menstruation had been regular; the last period had terminated three weeks previous. There was no special tenderness at McBurney's point. Urine had been passed just at the first onset of the attack; then none was secreted for six hours, and for twenty-four hours it was very scanty. The bowels were opened by enema without relief of the pain. During the previous fifteen months she had had three similar attacks, which she had been told were due to "typhlitis," and for which operation had been advised. At first, owing to the tenderness, a satisfactory bimanual examination could not be made, but a few hours later—a hypodermic of morphia having meanwhile been given—a tumour could be detected, apparently cystic. of, or close to the right ovary, and about the size of a small orange. Whether as a coincidence, or as a result, the pain ceased somewhat abruptly soon after the bimanual examination, though tenderness and some abdominal distention persisted for two days. Owing to personal affairs operation has had to be postponed.

In connection with these cases it is interesting to enquire how the various symptoms are produced; what is the mechanism of the train of symptoms and physical signs that they exhibit?

Now the main characteristic in all these cases has been the same pain and shock.

The mechanism of pain, and especially localised pain as a symptom in lesions of intra-abdominal organs is by no means explained. It is certainly there, and localised somewhat roughly to the lower half of the affected side. Shock explains the rest of the symptoms. Shock, as we know it now, means a more or less sudden dilatation of the vessels in the splanchnic area in the abdomen, and this sudden vaso-motor dilatation has nearly always the same train of symptoms be its cause what it may. Hence the symptoms of an acutely-twisted pedicle are practically the same at the onset as those produced by any other lesion causing severe abdominal shock, so in thinking of shock we have to think of a splanchnic vaso-motor dilatation, and see how the various symptoms that are clinically associated with this condition, can be physiologically explained by this lesion. It has been pointed out long ago that the dilated vessels in the splanchnic area could hold nearly all the blood in the body, so that a person can, so to speak, bleed into their own abdominal vessels. Hence the symptoms of shock are those of excessive bleeding, added to which, in this case is pain, the pain being referred to the lesion that caused the shock.

With a vastly-increased quantity of blood in the splanchnic area, there must necessarily be a much-diminished quantity in the peripheral circulation. Hence the quick, feeble pulse; the clammy, cold skin; quickened respiration, and faintness from anæmia of the cerebral tissues. The pressure in the renal arteries is diminished, resulting in anuria or diminished urinary secretion. It has been shown experimentally that a splanchnic vaso-motor dilatation causes some paresis of the muscular walls of the intestines, allowing them to dilate, and this explains the abdominal distention that is noticed almost from the first.

Pain and tenderness are not so easy to explain; probably both are due to a localised vasomotor dilatation in the early stages, and, secondary to a localised peritonitis, in the later.

A point of some interest in connection with my second case is the fact that shock, with her was associated with a slow, instead of a quick pulse. Why this should happen at times I do not know, but from the few cases I have seen of shock with a slow pulse, I should look upon it as a more serious symptom than the usual fast pulse, certainly in three cases that I can recall of shock, with a very slow pulse, the condition in each was most grave.

Twisted pedicle may occur and give rise to acute symptoms at any age. Cases are recorded of operation for this condition at the ages of 10 and also 63. A considerable proportion of the women have been pregnant, 14 out of 57 cases in one series. This is intelligible, for the higher the tumour is dragged up out of the pelvis into the abdomen by the enlarging uterus, the more likely the pedicle is to be twisted by the action of intestines and abdominal wall, and at the same time, the presence of the pregnant uterus makes the detection more difficult or even impossible In Case No. 4 of my series, I do not think it would have been possible to differentiate the soft cyst that was present, from the pregnant uterus; yet it gave rise to most severe symptoms. In the diagnosis of all these cases we have to ask ourselves—What conditions will produce shock with pain in the lower abdomen? For it is evident that any lesion that can give rise to such a condition may cause an error in diagnosis. And, again, we have to bear in mind that the initial shock may not be intense, but the secondary peritonitis the predominating feature, giving rise again to possible confusion with other conditions. Of the possible errors in diagnosis that can be made, I think the conditions that have always to be excluded, and which at times give rise to the greatest difficulty in recognising, are :—

Acute intestinal obstruction
Appendicitis
Extra-uterine gestation
Dietl's cases with a freely movable kidney
Stone impacted in the lower end of the ureter.

In all, the initial condition may be one of shock, and it is at the first onset that any difficulty in diagnosis will arise. Time prevents a discussion of the differential diagnosis, but I think one can often avoid error by giving a guarded opinion till the initial shock has somewhat lessened, when, as a rule, it is possible to arrive at a more accurate diagnosis. Appendicitis is harder to exclude when the initial shock has been comparatively slight and the secondary reaction more severe—of course in connection with a right-sided tumour. In looking through the literature of the subject one finds cases recorded where the abdomen has been opened for appendicitis, and an ovarian tumour with twisted pedicle found instead.

In all cases of doubt I think an examination under an anæsthetic is advisable, if the patient is too fat or too tender for a thorough examination to be made. This is all the more justifiable, as the treatment of this condition when discovered is purely operative, the chief exception being tumour occurring with advanced pregnancy under certain conditions where the size of the growth is not likely to interfere with parturition.

If operation is decided on, it should be performed as soon as the initial shock is somewhat recovered from. Once the pedicle of a tumour has begun to twist, the tumour becomes a distinct menace to life, for one can never foretell either the number and density of the adhesions it may contract, or the degree of necrosis of the tumour, with the risk of subsequent suppuration or septicæmia. With the low operation risk with modern methods, we are justified in urging operation in all cases, except in the few cases where some grave systemic condition forbids any operative interference.

DISCUSSION.

Dr. **Thomson** said that he had operated upon a patient a few days previously in whom a twisted pedicle was found, appendicitis having been thought to have been the cause of the symptoms.

Dr. **Robertson** reported having seen one similar case.

Dr. **Cameron** said that he had seen one similar case in which the diagnosis before operation had been acute intestinal obstruction.

PROCEEDINGS OF BRANCHES.

SOUTH AUSTRALIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

The usual monthly meeting was held at the University at 8 p.m. on 29th August, 1901, the President (Dr. Todd) in the chair.

Present: Drs. Gregerson, Symons, Good, Marten, W. Hayward, Watson, A. A. Hamilton, Evans, J. A. G. Hamilton, Lendon, Swift, Singleton, Bonnin, Scott, Gault, W. Anstey Giles, J. C. Verco, A. Wigg, Cavenagh-Mainwaring, Plummer, Cooper, A. Russell, Johnson, Shanahan, Cudmore, Poulton, and Gunson (Hon. Sec.) Visitors: Drs. S. Verco, O'Leary and Weld, and several medical students.

Professor Watson showed following specimens :—

1. Spindle-celled sarcoma of perineurium of sciatic nerve. Amputation through shaft of femur for relief of pain.—Dr. Giles.
2. Hopeless septic disorganization of knee joint following what the patient (a woman *æt.* 40), affirms, was a non-perforating injury a year before.—Dr. Giles.
3. Spindle-celled sarcoma of trapezius muscle from a man.—Dr. Bonnin.
4. Firmly united sliding fracture of femur without angular deformity, but with 3½ inches of shortening. Glancing impact of a bullet would account for the long middle fragment which buttresses the over-riding ends of the upper and lower fragments.
5. Bilocular stomach resulting from bygone ulceration in a woman *æt.* 50.
6. Dilated stomach from obstruction caused by pyloric adhesions from a man *æt.* 60.
7. Hypertrophied stomach from pyloric stenosis in a man *æt.* 64.
8. Cocoanut sized fibroma developed in the posterior wall of cervix. The fundus uteri was normal, and pushed up towards umbilicus. The cervical canal is represented by a crescentic slit easily admitting two fingers. The os uteri was closed with tendon sutures and left behind. From a multipara *æt.* 47, in whom bladder and sacral plexus symptoms predominated. A

photograph by Dr. Herschel Harris of a similar tumour removed by Dr. Worrall, might well pass as that of the present specimen. An urticarial rash appeared a few days after the operation, although no antiseptics were used and the patient did not feel sick.—Dr. J. A. G. Hamilton.

9. Congenital absence of gladiolus and some of the cartilages of right side.—Dr. Hayward.

10. Two fasciculated bladders with prostatic hypertrophy from old men who died of surgical kidney.—Dr. Giles.

The minutes of last meeting were read and confirmed.

A circular letter was read from the secretary of the Intercolonial Medical Congress. After much discussion it was resolved that further details of the new scheme be obtained before an expression of opinion be given, the matter being left with the Council for the present.

Two other letters were also left for the Council to deal with.

Dr. Marten then read his paper on "Tuberculous Peritonitis." (See p. 372.)

Dr. J. C. Verco also read a paper on "Polyorromenitis." (See p. 364.)

The discussion on these papers was adjourned till next meeting.

Cerebro-spinal meningitis, in the epidemic form, has appeared in Port Pirie, South Australia.

There have been, in all, about a dozen deaths, principally amongst school-children, in various parts of the town. So much consternation has been caused that the local State school has been temporarily closed, and many families have left the town to escape possible infection. Few adults have suffered. One or two cases that have occurred in Adelaide have been suspected to have originated at Port Pirie.

In one case Dr. A. M. Morgan, of Adelaide, has been able to isolate a diplococcus, which he is still working at, but he has not yet succeeded in identifying it with either the D-pneumoniæ or D-intercellularis meningitidis.

The South Australian Branch has recently lost two old members, both for many years well-known practitioners near Adelaide. Dr. Esau, of Woodside, had been in failing health for some time before his death. Dr. D. A. MacLachlan, of Stirling West, was one of the original members of the Branch and his death was unexpected.

NEW SOUTH WALES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

The regular monthly meeting of the Branch was held at the Royal Society's Rooms on Friday, August 30th, 1901. Mr. J. Foreman (president) in the chair, there were also present Drs. W. J. Munro, Jamieson, Eames, Goode, Binney, Megginson, Faithfull, Beeston, Crago, Clubbe, Wilkinson, Muskett, Hinder, Sydney Jones, Trindall, Todd, Haukins, Lloyd, Julia Carlisle Thomas, Fiaschi, Levy, Fairfax Ross, Mills, MacCulloch, Herschell Harris, Millard, McDonagh, Brady, MacSwinney, Worrall, Maitland, Browne, George Armstrong, Spencer, Carruthers, Ludlow, Pockley, Gledden, Marano, Stacy, W. A. West, G. L. O'Neill, Litchfield, R. H. Jones, Palmer, Watson Munro, P. W. Boelke, Chas. MacLaurin, Quaife, Barrington, Read, Cosh, Mary Booth, Harriett Biffin, Dixson, Roth, Sinclair Gillies, McMurray, Grace Boelke, G. A. Marshall, Corlette, Doak, W. E. Warren, Mullins, Tidswell, Kirkland, Irwin, Jenkins, R. Read, Newmarch, Arthur, Taylor Young, Blackwood, Bennet, Gordon Craig, Cleland, Abbott, Gill, Wood, P. S. Jones, Junr., Burge, H. Marshall, Sandes, Phipps, The Hon. Dr. Nash.

The minutes of the previous meeting were read and confirmed.

The President announced the election of Dr. J. H. Phipps, of Mosman, and Dr. P. W. Boelke, of Hunter's Hill; and the nomination of Dr. Nolan of Petersham, and Dr. Charles Ayres, Hamilton.

A letter from the medical men at Inverell, stating that the Manchester Unity Lodge at Inverell were endeavouring to reduce the lodge fees and asking for the support of the members of the Branch. A vote of sympathy and support was carried by acclamation.

Dr. Pockley shewed for Dr. Craig a case of colloid degeneration of both optic discs in a man aged 37, an extremely rare condition. The discs are covered with rounded knoblike protuberances which project all round, and on the face of the disc overlapping one another. They are of a pale greyish colour, and appear to the ophthalmoscope like grey paraffin. The blood-vessels are reduced to mere threads, and appear here and there emerging from the crevices formed by the protuberances. He had also retinitis pigmentosa, and vision is reduced to perception of light.

Dr. Pockley also shewed a case of injury to eyeball in a girl. In addition to rupture of sphincter of iris and partial luxation of the lens, and remains of hæmorrhagic effusion into the vitreous, there were pale and pigmented areas adjoining the disc, also peculiar broad white, tense, cicatricial bands running from the disc to and beyond the macula. The edges of some of the bands are falciform, and encircle, at one place near the macula, an oval excavation (one of the so-called "holes, at the macula ").

A Question of Privilege.

Dr. Camac Wilkinson, said :—Before you proceed with the ordinary business of the meeting, I desire to bring forward an important question of privilege. The matter of privilege arises out of an unworthy and defamatory editorial that appeared in the last number of the *Australasian Medical Gazette.* I will begin by reading the correspondence that has passed between me and the Editor of this paper.

213 Macquarie Street, August 23rd, 1901.

(To the Editor of the Australasian Medical Gazette.)

Dear Sir,—I consider that I have a right to demand from you the evidence upon which you make a gross and truly unfair attack upon me in your Editorial of last issue. It is so unfair and so full of false statements that, unless I get an apology, I shall be justified in seeking redress in the law courts. Such a gross misrepresentation of facts in an Editorial which is read throughout Australia is likely to injure my reputation and I demand public reparation from you. In the next issue of the journal I shall expect an Editorial on the subject, placing facts in their true light, and I require from you, sir, some guarantee that this reparation will be made. Your Editorial is nothing else than a personal attack, and I do not intend to view it in any other light.

Yours faithfully,

W. CAMAC WILKINSON.

This letter was addressed to Dr. Knaggs, who, having resigned the editorship, replied to Dr. Wilkinson, disclaiming any responsibility, and forwarded the letter to the acting-editor, who sent the following reply :—

British Medical Association, New South Wales Branch,
121 Bathurst Street, Sydney,
August 26th, 1901
Dr. W. Camac Wilkinson,
213 Macquarie Street, Sydney.

Dear Sir,—I am in receipt of your letter of 23rd instant to the Editor of the *Australasian Medical Gazette*, sent on by Dr. Knaggs, in which you state that "a gross and truly unfair attack" has been made upon you in an Editorial in this month's *Australasian Medical Gazette*.

I shall be glad if you will kindly point out some of the "false statements" and "gross misrepresentation of facts" of which you complain, as I fail to find anything more than a fair criticism of the attitude you have maintained towards a movement, which is of great public importance.

I remain, yours faithfully,
W. H. CRAGO, Acting Editor,
Australasian Medical Gazette.

Union Club, Sydney,
August 28th, 1901.
W. H. Crago, Esq., Acting Editor,
Australasian Medical Gazette.

Sir,—Your letter justifies me in assuming that you are the author of the Editorial of which I complain, but I am at a loss to know the source of the information on which you base your statements. You have been in no way associated with the Executive of the scheme for the treatment of Consumptives in Sanatoria, and accordingly you can hardly know "the attitude I have maintained towards a movement which is of great public importance." If, as must be the case, you have learnt something by hearsay, you are relying upon a very dangerous and treacherous source of evidence; and I entirely repudiate the idea that I have ever raised objections or offered opposition that I shall shrink from defending to the uttermost. If you, sir, are the author of the Editorial, you have had the temerity to set yourself up as a critic on a large and difficult subject, upon which your best friends must pronounce you an untrained and incompetent judge. The Editorial itself condemns you, for you make no attempt to discuss the important issues I raised in a paper, which both Mr. Foreman, President of our Association, and Dr. Scot Skirving, the chief opponent of my views, described as "admirable." You were not even present at the meeting. Perhaps the most merciful view to take of your Editorial is to suppose that you did not even read my paper. The subject of my paper was "The Climate of the coast of New South Wales in relation to Pulmonary Tuberculosis," and my opinions were candidly and truthfully expressed—without bias, without favour. It was your duty as Editor to criticise my views and the facts I brought forward, according to your own lights. This task you took good care not to attempt. On the contrary, avoiding criticism of that for which I hold myself entirely responsible, you have indulged in a tirade against me for things that I never did and words that I never said. You write, "Four years ago Dr. Wilkinson assured the meeting at the Town Hall, that in six months time there would be an absolute cure for tuberculosis." At that meeting I held in my hand Koch's communication, with every word of which I was familiar, and in that communication Koch himself spoke guardedly, but hopefully of the new Tuberculin *in suitable cases*. I expressed the hope that within a year we might see "the climax of a life, laboriously, patiently, unostentatiously, and, let us hope, successfully devoted to the discovery of a remedy for tuberculosis." These were the words I used, and I am not ashamed of them. Would you be good enough to compare my spoken words with your false, misleading sentence? Next, you laboriously deliver yourself of a long, involved and ungrammatical sentence, that contains, besides a parenthesis, the following words "for the treatment of cases of pulmonary phthisis in such an early stage that there are no physical signs of disease in the chest, and no expectoration, and in which (*sic*) the diagnosis, etc." Again I must be merciful and suppose that, as you are a surgeon, you do not carefully discriminate between physical signs and symptoms. My whole contention is that physical signs are often present and overlooked, because many physicians put too much trust in symptoms. In speaking of one of my cases I say, "Physical signs are altogether out of proportion to his local symptoms." Physicians distinguish between physical signs and symptoms, on your own shewing surgeons of your type do not. Why else should you thus misquote and misunderstand me? It is very weary work pointing out mistakes that a medical school boy might easily avoid.

But, Sir, you imply that I have offered a factious opposition to the Executive of the scheme in question. I retort that my views, that are at least up-to-date, have till recently met with factious opposition. I have striven energetically to save the Executive from making blunders and wasting public money. You yourself admit it unwittingly, for you say in your editorial at least one good thing by accident. You say "We hope that in a very short time a suitable site will be secured either on the eastern slopes of the mountains, *or perhaps somewhat nearer Sydney in the Dural and Pennant Hills districts*." Who is responsible for this alteration? It is the very thing I have been consistently fighting for. When other members of the Committee were travelling to examine tracts in the mountains, miles away from the railway, some waterless, and all devoid of any pasturage, I refused to go because, as I stated in a resolution, I was of opinion that we should find out whether or not a suitable site could be found near Sydney. The very district which is mentioned by you as an alternative—the districts of Dural and Pennant Hills—was included on my own proposition. The factious opposition has been on the side of the majority. There are other important points which I reserve for another occasion. Whatever I have done or said I have done and said in the interests of truth and for the public good, and I am now prepared to justify all that I have said or done before a body of intelligent and unbiassed men. You have chosen to indulge in unjust comment from a culpable ignorance of facts, and you have proved your incompetence to fairly judge a very important question by your disregard of the main contentions of my paper and a reference to actions of mine which you cannot know of yourself, and certainly fail to understand or appreciate in their true light.

It will be for others to judge at the proper place and time whether your editorial "On the Climatic Treatment of Pulmonary Consumption" is a fair criticism of my paper, and the important issues raised therein, or an unworthy and damaging attack upon myself.

I am, Sir, yours, etc.,
W. CAMAC WILKINSON, M.D. Lond., M.R.C.P.,
Lecturer on Medicine, Sydney University.

If my words have been strong, they have been prompted by virtuous indignation at an unprovoked, irrelevant, unjustifiable, and unjust attack upon myself. It may be that after all, Mr. Crago is not the author of the editorial, though he is responsible for its appearance. If he did not write it, I shall be ready to make due apology.

I have a lawyer's opinion that the article is certainly libellous. Any fair-minded person needs no lawyer to tell him this plain fact. A layman, who read the paper and the article gave it as his opinion that the writer of the editorial had not read my paper. Another layman said, "he (the Editor), must have been in a very bad temper when he wrote it."

This editorial is published in a paper which is distributed throughout Australia and in the chief centres of Europe. Many who read the editorial will not read my paper. Such readers, accepting the statements of the Editorial, will class me among those affected by the moon. If the article had been even signed, the case might be somewhat different. At least, in our own State, my authority would be held to be as good as that of the man who was foolish enough to acknowledge such an article. But an editorial, that is held to represent the expressed wisdom, intelligence, and experience of the Editor of the most important medical paper in the Southern Hemisphere, is stamped as genuine until it is proved to be counterfeit. I shall attempt to show that the editorial is full of inherent faults of no mean kind.

The editorial displays an ignorance of the views of modern medicine, a style of grammar that a schoolboy ought to be ashamed of, and an audacious misrepresentation of facts. The writer of the editorial crowns his ignorance by the very title of his article—"The climatic treatment of pulmonary consumption." My paper, which he dares to criticise, is "The climate of the coast of New South Wales in relation to pulmonary tuberculosis." Modern authorities do not speak of climatic treatment, but of sanatorium treatment; for. provided the climate be good, the character of the climate *per se* is quite a subsidiary factor.

Next, tubercular disease of the lungs is not consumption, and the sooner my critic and those who think with him learn this, the sooner he *et hoc genus omne* will understand my attitude. As soon as the stage is reached when consumption may be a pardonable term, the case is generally beyond the influence of sanatorium treatment. My critic had better study the views I expounded to a meeting of the Branch four years ago, before he deals with the subject in language that reveals a lamentable ignorance of the nature and course of tubercular disease of the lungs. As teacher of medicine at the University, I avoid altogether the use of such terms as consumption and phthisis. Such terms may be useful at times in addressing lay audiences, but they are hardly tolerated nowadays in the presence of educated medical men. Hence the title of the editorial—"The climatic treatment of pulmonary consumption"—represents the condensed essence of a sublime disregard for modern views.

But while we may in tenderness describe the medical views as merely old-fashioned, the grammar of the editorial is more than old-fashioned—it is positively atrocious. There are at least six grammatical mistakes in the article. I have mentioned one already—"and in which." There are two "and who"s. We read also "of a number of cases who (sic)," and "there is a class which are (sic)." There are other mistakes perhaps justified by usage. I seriously hope we may somewhere find an editor who has some knowledge of English syntax. It is bad enough to be abused in decent English, but it is intolerable to be abused in bad grammar, thought out in the serene solitude of the editor's office. But I have most reason to complain of the statements regarding my action as a member of the Executive of the scheme mentioned. It would take too long to enter fully into this matter, but I can assure all that I shall use all my efforts to establish the scheme on scientific lines. If I have ever checked the movement I have thereby prevented it taking a wrong direction. My letter deals with my attitude at sufficient length.

But I have to complain of a second breach of privilege. Dr. Sydney Jones, in his letter to the *Gazette*, gives the Editor away when he writes: "By your courtesy in permitting me to read a proof copy of the paper, I am enabled to make a few comments upon it—a more lengthened criticism must he postponed until a future occasion." Dr. Sydney Jones furnished notes through Dr. Scot Skirving to the meeting at which the paper was discussed—he, further, by the courtesy of the Editor, who was not courteous enough to ask my permission, has an opportunity of criticism that I believe is not usually extended to an opponent—and he promises us a third edition of his criticisms. Now, I contend that it was a gross breach of privilege for the Editor to hand about my paper in this way before it was published. A most dangerous precedent has been established. These two gross breaches of privilege have been perpetrated in one issue of the *Gazette*.

Now, sir, this unworthy editorial forsooth, with its prospective fatalities, is the first-born of the acting editor appointed by the Council. I trust the Council feels proud of this untimely and ill-looking fruit of its own sowing. Whoever may have conceived it, the acting editor has delivered himself of it. Has it a reputable father? I do not suppose for a moment that Mr. —— or Dr. —— assisted at the process of parturition. I hardly think that any one will now be anxious to claim relationship with it—it is so ugly, and there are congenital marks of bad grammar upon it.

I bring forward this matter, not only in self-defence, but at the same time in vindication of the rights of anyone who may honestly try to find out the truth in spite of error, prejudice, and personal interests.

This paper of mine is the first paper of importance I have published in the *Gazette*, and it deserved better treatment. It would be hard for me to find any reason for such an unwarrantable attack. One is hardly encouraged to publish original matter in this *Gazette* again. I observe that a member of the Council, if he has anything good to publish, publishes elsewhere. I refer to Dr. Rennie. But the fault is essentially the fault of the man who wrote the article, and I can forgive all but him. From him I shall require the *amende honorable*—public recantation and due reparation—nothing less, and I shall be content to let the matter end. But unless I receive this public apology—full and unreserved—in the terms of my motion, I shall exact due reparation by hook or by crook. I intend to clear my reputation at all hazards.

Who is legally responsible for this disgraceful Editorial? The title page shows that the responsibility rests with the members of the Branch, who are the legal publishers, the printers, and the Editor, who wrote it. There is no legal recognition of the Council, and I appeal to the members of the Branch. You have to decide whether the matter shall be settled here and at once.

> "Who steals my purse, steals trash; 'tis something, nothing.
> 'Twas mine, 'tis his, and has been slave to thousands,
> But he that filches from me my good name,
> Robs me of that which not enriches him,
> And makes me poor indeed."

I demand, at your hands, a full and unreserved apology for the unworthy and damaging attack, of which I have a right to complain.

I beg to move the following motion—"That in the opinion of this meeting, the Editor of the *Australasian Medical Gazette* is, in duty bound, to publish in the editorial columns a full apology for the gross inaccuracies and unjust and misleading comments contained in the first editorial of date, August 20, 1901, dealing with Dr. Wilkinson's paper on 'The Climate of the Coast of New South Wales in relation to Pulmonary Tuberculosis.'"

The motion was seconded by Dr. W. E. Warren.

The **PRESIDENT** refused to put the motion.

Dr. **WILKINSON** dissented from the ruling of the Chair.

On this motion being put to the meeting, it received the support of only two or three members.

THE ELECTION OF EDITOR.

Mr. **HANKINS** said:—I beg leave to nominate Dr. George Rennie for the post of Editor of the *Australasian Medical Gazette*, rendered vacant by the resignation of Dr. Knaggs, and in doing so I desire to state that I am expressing the wish of, I believe, every individual member of the Council. Dr. Rennie was very reluctant to stand for election, but when the Council, who are responsible to the members for the management of the *Gazette*, and who have had the matter under their serious consideration for several weeks, pointed out to him that in their opinion he was the fittest man at the present juncture to fill the post, he put aside all personal considerations and, from a sense of duty, assented to the nomination. By the articles of association the Council is empowered to dispense with the services of an editor should the necessity arise, but by a curious anomaly the election of the new editor must be made by the Branch at a general meeting, and the only way the Council have of expressing their views is by nominating the editor in the hope that the members will have sufficient confidence in their judgment to carry the nomination into effect. I should have preferred to say no more on the subject, but during the last few days Dr. Knaggs has issued a circular to all the members of the Branch, and also, I am surprised to see, to certain of the lay press, containing statements which, if not officially contradicted, would be liable to cause serious misunderstanding amongst the members. I will, therefore, take these statements in order and make my comments upon them. Dr. Knaggs states:

> "Under date of 2nd July, 1901, Mr. C. P. B. Clubbe, of Sydney, wrote to the Council of the Branch, stating that, 'There was a widespread feeling of dissatisfaction amongst medical men, not only in New South Wales, but in other states, with the manner in which the *Australasian Medical Gazette* is at present conducted. Instead of being the powerful organ it should be, its opinions carrying weight and having influence in all matters pertaining to the welfare of the profession, it is almost universally condemned, and as a medical journal, considered to be an absolute failure.' A sub-committee was appointed by the Council to inquire into this assertion made by Mr. Clubbe; and, notwithstanding the fact that in the report of this sub-committee no evidence whatever was adduced to support his statement. I considered it incumbent upon myself to resign my position as Editor, so as to submit myself for re-election in order to test the validity of the charges made by him against my editorial management of the *Gazette*."

Now the sub-committee was not appointed to inquire into the accuracy of Mr. Clubbe's statement at all.

Every member of the Council was able to form his own opinion as to the *Gazette*, and on the receipt of Mr. Clubbe's communication, the Council decided to appoint a sub-committee to inquire into the whole working of the *Gazette* so as to enable the Council to form an independent opinion quite apart from Mr. Clubbe's statement.

The report of this sub-committee was sent to each member of the Council, including Dr. Knaggs, and before the Council had an opportunity of considering the report, Dr. Knaggs tendered his resignation, stating at the same time that he deemed it incumbent upon him to carry on the editorial duties until another editor shall be appointed.

After the Council had duly considered the report, they accepted Dr. Knaggs' resignation. They did not accept his offer to carry on the editorial duties, but appointed Dr. Crago, pending further arrangements, to carry on the *Gazette*. Dr. Knaggs goes on to say:

> In resigning this position, which I have held for the past six years, I was under the impression that the precedent adopted at the first election of editor six years ago would have been followed in the forthcoming election, viz.: That every member of the Branch in New South Wales would have the privilege of voting by having a ballot paper forwarded. Notwithstanding the fact that the Branch is a Limited Liability Company, it appears that the Council has now decided that the election of editor must take place in Sydney, and the editor shall be elected by open voting at that meeting. By this decision every country member of the N.S.W. Branch of the British Medical Association is disfranchised, and unless such member incurs the expense of a journey to Sydney cannot have any voice in the conduct of the business of the Branch.

Now it is quite true that the first election of editor six years ago was conducted in the way stated by Dr. Knaggs. On that occasion Dr. Huxtable and Dr. Knaggs were the candidates, and Dr. Huxtable was returned by a large majority, I believe a majority of about 40 votes. The reason for the general ballot being adopted on this occasion was that it was at the time of the annual meeting, when, according to the articles of association, the Council and officers had to be elected in this manner. The editor is not an officer of the Association, but as the ballot was necessary in the case of the officers it was considered convenient to elect the editor at the same time and by the same method, although it was certainly illegal, as being contrary to the articles of association. As I said before, the ballot resulted in the election of Dr. Huxtable, who, for reasons it is not necessary to enter into now, at once resigned. The resignation was accepted, and Dr. Knaggs nominated at the same meeting, and elected by a show of hands. So it appears that, according to Dr. Knaggs, all the country members were at this second election disfranchised, and he himself was elected only by the members present at the meeting, a proceeding which he objects to in the present instance. The last point I wish to draw attention to is the concluding paragraph in Dr. Knaggs' circular, and which I consider the most serious of all. It is as follows:

> I also hope that the country members will realize how, by the articles of association, they receive very little benefit by being members of the Society, and unless they incur the expense of a journey to Sydney, they can have no voice in the management of the Association.

Now, gentlemen, I look upon this statement as a discreditable and disloyal attempt to cause dissension in the Branch. We know that country members miss many of the advantages possessed by Sydney members in not being able to attend the regular meetings, but it is unfair to suggest that, in addition to these disadvantages, they have no voice in the management of the Association.

They all have an equal voice with the Sydney members in the election of officers and Council, who are empowered by them to manage the affairs of the Branch. The editor is not an officer of the Branch, and is not even "ex-officio" a member of the Council. He need not even be a member of the profession, and the articles provide that, unlike the officers of the Branch, he may be elected at any general meeting of which due notice has been given. This attempt to belittle the Association in the eyes of country members

I consider unworthy of a member of the Council of this Branch.

Dr. **Beeston** proposed—"That the election of Editor be adjourned until a ballot can be obtained of all the members of the Branch."

Dr. **Todd** asked whether Dr. Beeston's motion was in order as it was contrary to the Articles of Association.

The **Chairman** ruled the resolution out of order.

Dr. **Beeston** proposed—"That the election of the Editor be postponed for two months."

Dr. **Wilkinson** seconded.

The postponement was agreed to.

Dr. **Hankins** exhibited a patient on whom he had performed the operation of complete extirpation of the larynx for epithelioma in December last. (See p. 371.)

Dr. **Sydney Jamieson** made the following demonstrations.

(1.) Demonstration of various pathogenic and saprophytic micro-organisms on potato medium.

(2.) Microscopic demonstration of Fränkel's pneumococci in pericardial exudate, and film of same organism grown in blood agar.

(3.) Demonstration of pathological specimens.

(*a*) Extensive intussusception of greater portion of ileum through ileo-cæcal valve.

(*b*) Secondary sarcomata of the lung—showing extensive hæmorrhages into substance of growth.

(*c*) Kidney from case of sewer gas poisoning, showing vermilion red discolouration from carbonic oxide hœmoglobin.

(*d*) Large mucous polypus of naso-pharynx removed by Dr. Brady.

All the above preparations were prepared by the formalin soda sulphate process, to retain natural colour changes.

Dr. **Cleland** exhibited a fœtus with tube and placenta removed by Dr. Foreman.

The Council met at the Editor's Room on Tuesday, 3rd September, 1901. Present: Drs. Foreman, Jamieson, Fiaschi, Rennie, Crago, Todd, Knaggs, Hankins, Newmarch, Worrall, Hinder, Brady, and Abbott.

The minutes of the previous meeting were read and confirmed.

Dr. H. Russell Nolan, of Petersham, and Dr. W. J. S. McKay, of Stanmore, were elected members of the Branch.

Letter was read from Dr. Otto Bohrsmann, with reference to the People's Prudential Assurance Company also letter of Hon. Secretary in reply.

Resolved - "That the letter be acknowledged, and Dr. Otto Bohrsmann be informed that the Council had nothing further to add to its previous communication."

Letter was read from Dr. Wilkinson regarding the Editorial which appeared in the August number of the *Australasian Medical Gazette*, and asking for an apology.

Dr. Crago read the correspondence which had passed between Dr. Wilkinson and himself on the subject.

Resolved—"That in the opinion of the Council, an apology is uncalled for, inasmuch as there was no intention to make a personal attack upon Dr. Wilkinson."

The Hon. Treasurer reported the following credit balances: General account, £232 8s. 6d.; *Gazette* account, £219 12s. 3d.

Resolved—"That £50 be paid to the late Editor."

Account passed: Refreshments, £2.

THE METHOD OF ELECTION OF EDITOR.

Resolved—"That in the opinion of the Council, the appointment of the Editor ought to be in the hands of the Council, and that steps be taken to propose the necessary alteration in the Articles of Association."

Resolved—"That a circular be forwarded to all the members of the Branch, explaining the position of the Council with regard to the appointment of the Editor, and that the matter of drafting the circular be left in the hands of the Hon. Secretary."

Resolved—"That a Special General Meeting of the Branch be held on Friday, 20th September."

Form of proxy submitted was approved.

Resolved—"That the proxy forms must be in the hands of the Hon. Secretary twenty-four hours before the date of meeting."

Letter was read from Dr. Knaggs to Dr. Crago with reference to the Editorship of the *Australasian Medical Gazette*; also Dr. Crago's letter in reply. It was decided to continue the arrangement made at the previous meeting.

OBITUARY.

Wright, Horatio George Anthony, M.R.C.S. Eng., 1850; L.S.A. Lond., 1851.

We regret to have to announce the death of Dr. H. G. A. Wright, which took place at his residence, Wynyard-square, Sydney, on Saturday, September 14th, at the age of 74 years. The immediate cause of death was angina pectoris, and we understand that the deceased gentleman continued his practice almost to the very last. Dr. Wright was one of the oldest practitioners in Sydney, having practised there for close on 50 years. He always enjoyed an extensive practice, and was much esteemed by his patients for his quiet, genial manner. Dr. Wright was one of the original members of the New South Wales Branch of the British Medical Association, and was its first hon. treasurer. For several years past he has been the hon. treasurer of the Royal Society of New South Wales. He leaves a widow, and also one son and one married daughter by a former marriage. The funeral took place at Waverley on Tuesday, 17th inst.

QUEENSLAND BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

A meeting of the Branch was held on Friday, September 6th, the following members being present: Dr. Taylor (President), Drs. Thomson, Robertson, Lilian Cooper, Eleanor Greenham, Flynn, Lightoller, Hawkes, Lockhart Gibson, Cameron, Halford, Dixon, Wield, Comyn, Orr, Espie Dods and Brockway (hon. sec.); visitor, Dr. Cameron.

Dr. **Thomson** exhibited, under the microscope, the ovum of Bilharzia, obtained from the urine of a returned soldier. The patient was a native of Wombye (Q.), and left for South Africa with the fourth contingent in May, 1900, his urine at that time showing an absence of albumin; he arrived in South Africa in June. In April, 1901, he noticed that he was passing blood, but continued his duties in the field until July 6th, when he returned from South Africa. On August 6th, when the examination of the members of the returned contingent was made, albumin and blood clot was found in his urine; his weight at the time was

10 st. 11 lb., 6 lb. less than when he left Queensland for South Africa. He was sent to the Brisbane Hospital, where the ova of Bilharzia were discovered in his urine. He was quite healthy in appearance and felt well. The interest of the case lay in (1) its being the first of its kind in Queensland, and (2) the question of the possibility of infection.

After discussion it was resolved that notification of the case be sent to the Commissioner of Health.

Dr. **LOCKHART GIBSON** showed a large nasal polypus removed two weeks previously from a girl aged nine. It had measured on removal 2¾ inches by ¾ inch by ⅓ inch. Its posterior end had presented as a rounded mass, partly occupying the nasopharynx. Its anterior end had been just within the anterior nares. The nostril had been completely occupied and blocked, and the posterior end had partly blocked the other nostril. Under cocain he had grasped the nasopharyngeal portion with the loop of a Chiari's postnasal snare (guided by a mirror), and the polypus was delivered whole. Its attachment had been a fairly broad one in the middle third of the middle turbinated body. The operation was "not painful." He thought that the rarity of nasal polypi in children, and the size of this one, made the case worthy of note. He had only encountered one other case in a child (recorded some years ago in the *Australasian Medical Gazette*). It was somewhat similar. The boy was seven years old, both nostrils were completely blocked by the same polypus. The same operation was performed, and there has been no return.

Dr. **ROBERTSON** stated that he had removed recently a similar, though smaller, polypus from a boy aged seven. The boy had returned twice at intervals of a month for the removal of polypi, but had not been seen since.

Dr. **HAWKES** exhibited (1) a uterus removed for fibroid of the broad ligament; (2) a tubal gestation, unruptured.

The Secretary announced that he had been requested by Dr. Hirschfeld to withdraw the motion standing in his name.

A letter was read from Dr. Ham, pointing out the work done by the Department of Health in connection with the suppression of plague.

A letter was read from Dr. Knaggs with reference to the editorship of the *Gazette*.—It was resolved that this be acknowledged with thanks.

A letter was read from Dr. Halford, warning the members of the Branch of the necessity of notification of infectious diseases, and enclosing a copy of an advertisement issued by the Joint Epidemic Board to that effect.

The President announced that a room had been granted by the Home Secretary in the Treasury Buildings for a place of meeting of the Branch.

Dr. Hawkes read a paper on "Acute torsion of the pedicle as the first symptom of ovarian tumour." (See p. 385.)

BRITISH MEDICAL ASSOCIATION.

NEW SOUTH WALES BRANCH.

A General Meeting of this Branch will be held at the Royal Society's House, Elizabeth Street, Sydney, on Friday, 27th September, at 8.15 p.m.

Business :—General.

G. T. HANKINS, Hon. Secretary.

VICTORIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

THE ordinary monthly meeting of the Victorian Branch of the British Medical Association was held on Wednesday evening, August 21st, when the Presidential half-yearly address was delivered by the President, Dr. Neild.

Dr. **MACANSH** expressed his thanks to the President for his interesting notes, and stated that the profession and the public had a great deal for which to thank science. The discovery of anæsthetics, together with the knowledge of how to use them, was an inestimable gift; but he thought that there were far too many deaths under chloroform in Melbourne, which were caused in many cases by careless administration or bad chloroform.

Dr. **CUSCADEN** after congratulating the President, said that not many of the younger members of the profession had seen a major operation without an anæsthetic, and it might be interesting to describe shortly a case he had seen of Removal of the Superior Maxillary Bone by O'Grady of Dublin. The patient was first strapped into a chair, and the operation done (without tracheotomy) in the usual manner, only without an anæsthetic. The yells and screams of the patient were horrible, and two students fainted, and had to be carried out, and the operation itself was simply ghastly. Dr. Cuscaden believed in the administration of chloroform by means of an open framework covered with lint, which he preferred to flannel on account of its cleanliness, as it could be changed after every case; and he had no hesitation in saying that death from chloroform in most cases was due to want of care, or inexperience.

Dr. **WILLIS** was struck by the wonderful knowledge displayed by the teachers in Dr. Neild's early days of the administration of chloroform; and, so far as he could judge, the same rules applied in the present day; nor did he think there was much more known about anæsthesia now than was known in those days. No doubt we have valuable aids in oxygen, and strychnine now, but these were really the only adjuncts of much use that had been discovered since those early times.

Dr. **NEILD** replied that his paper had been brief on account of the time at his disposal, but that he had many notes that might be useful in the compilation of a broader paper on this subject. He had not touched upon inhalers, but he might state that he had always been used to the flannel mask, which was invariably washed after being used; and during his long career he had never lost a single case whilst administering chloroform. No doubt the use of lint each time was an improvement upon the flannel. Again, pure chloroform was an absolute necessity, and he never kept a large stock of it, for when a bottle had been opened, the air got at it, and the light as well, and no doubt it decomposed, if kept any length of time under such conditions. Therefore, care about these small details often make the difference between danger and safety.

THE WEST AUSTRALIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

AUGUST Meeting, held Saturday, August 3rd, at Perth Hospital. Present: Drs. Tratman (in the chair), Saw, Dermer, Horrocks, Harvey, Harper, Thompson, Badock, Davy, and Anderson (Hon. Sec.).

Frederick S. Butler, M.B. Melb., was elected a member of the Branch.

Loyal Address.—It was decided that the reply of the Duke of York to the loyal address should be framed and hung in the Board room of the hospital.

Correspondence.—A letter was read from Dr. Sprott, Secretary of Intercolonial Medical Congress, stating that the resolution of the Branch in favour of a Medical Politics and Ethics section at the Congress would be considered at the next Council meeting.

Dr. **BIRMINGHAM** wrote resigning his membership. The resignation was accepted.

Dr. **HORROCKS** then gave notice of motion for the following meeting. "That newly registered medical practitioners may advertise the simple announcement that they have commenced practice in a certain district in the local press, for a period of one month; also in the case of change of address, resumption of practice after illness or holiday, an advertisement may be inserted for one week."

Dr. **TRATMAN** then read the notification on vaccination appearing in the daily press, and pointed out that it was misleading in that it did not state that the act also provided that any registered medical practitioner could perform vaccination, and that the public were led to believe that only public vaccinators could vaccinate; thus seriously interfering with private practitioners. It was decided that Dr. Lovegrove should be written to on the subject.

Dr. **SAW** exhibited a man from whom he had removed half of the tongue for epithelioma three months previously. Speech and movement were good and there was no sign of recurrence. The diagnosis was confirmed microscopically.

PROPOSED HOSPITAL FOR CONSUMPTIVES.

A **MEETING** of the honorary medical staffs of the Sydney, Prince Alfred, St. Vincent's and Thirlmere Hospitals was held in the Board-room of the Sydney Hospital on Thursday, August 29th, to consider the question of providing accommodation for phthisical patients. Present:—Drs. Sydney Jones (chairman), Jenkins, Hood, Harris, Wilkinson, Cohen, Ross, Dixson, Young, Kirkland, Gillies, MacCarthy, Kater, McLean, Mills, Hinder, Worrall, O'Neill, Purser, Maitland, Arthur, Hankins, Jamieson, Armstrong, Maher, Fiaschi, Corlette, Hughes, Bowker.

Dr. P. Sydney Jones was unanimously elected chairman.

The Chairman then read an extract from the minutes of the honorary medical staff of the Sydney Hospital, in which it was suggested that the present meeting should be held, and also the circular convening the meeting. He then called on Dr. Sydney Jamieson to move the first resolution.

Dr. **JAMIESON** then moved:—"That a deputation, consisting of the members of the honorary staffs of the Sydney, Prince Alfred and St. Vincent's Hospitals, together with the Executive of the Queen Victoria Homes for Consumptives, wait upon the Chief Secretary and urge upon him the imperative necessity for immediate provision being made to accommodate consumptives in a special hospital in the vicinity of the metropolis." In moving the resolution Dr. Jamieson emphasised the absolute necessity for the provision of accommodation for the consumptive poor of the city. He was strongly of opinion that they should not be admitted to the general wards of any hospital, as they were a source of danger to the other patients Neither should they remain at home, as they were a source of danger to others in the same house. The Thirlmere Home would only admit—and rightly so—patients in an early stage of the disease. The more advanced cases had nowhere to go, and were a constant menace to the public health.

Dr. **FAIRFAX ROSS** seconded the motion.

Dr. **WILKINSON** said that the object of the meeting would receive the support of every educated man in the community. Four years ago he had pointed out that the erection of separate hospitals for incurables was necessary in any system of prophylaxis, but public opinion must be educated before they could expect Ministers to authorise the necessary outlay. He urged that the prophylaxis of tuberculosis was more important than treatment. The foci of infection should be diminished as far as possible, and he pointed out that these foci existed in the overcrowded dwellings of the poor. The prevalence of the disease was due to its prevalence amongst the poorer classes, from whose houses it spreads, and the best way to eradicate the disease is to remove the person who is the source of the infection. In time it would be the first duty of the State to do this, as in cases of plague or leprosy, and this should be urged on the Government. But he questioned whether the way suggested in Dr. Jamieson's resolution would be effective, and was of opinion that it would be better to approach the Mayor and ask him to hold a public meeting for the purpose of forming a deputation to urge upon the Government the importance of the matter under discussion. He thought that this would have more weight, as the matter was essentially a municipal matter, and the deputation would not represent the medical profession only, but would be backed by strong public feeling.

Dr. **MILLS** supported Dr. Wilkinson's suggestion.

Dr. **PURSER** said that two deputations had already waited on the Government to try and obtain funds to enable the Thirlmere Home to be completed, and to take some steps to prevent the spread of the disease, without success. He thought all the influence possible should be brought to bear on the Government, and supported Dr Wilkinson's suggestion.

Dr. **JAMIESON** expressed his willingness to modify his resolution in the way suggested by Dr. Wilkinson. He thought Dr. Wilkinson's suggestion an excellent one.

Dr. **T. STORIE DIXSON** said that there was an intense feeling amongst the members of the staff that something should be done, and thought that the medical profession had not been active enough in the matter up to the present. He thought that a deputation from the present meeting might wait on the Government as well as the one suggested by Dr. Wilkinson.

Dr. **MACCARTHY** thought that a public meeting convened by the Mayor would force the Government to act in accordance with the views of the medical profession. At the meeting the whole question should be stated comprehensively, so that the public might be thoroughly enlightened.

The **CHAIRMAN** (Dr. P. Sydney Jones) said that he was happy to be in entire accord with Dr. Wilkinson on this question, and heartily approved of the suggested public meeting. A hospital for incurables was part of the original scheme of the Queen Victoria Homes for Consumptives, and earlier cases of the disease should be sent to sanatoria, while there should be a hospital for the reception of the more advanced cases. The question was one of the gravest concern, though the public were extremely apathetic, and every effort should be made to induce them to assemble at the proposed meeting. They should be educated as to the importance of prophylaxis. If their fears could be worked upon some good might be effected.

Dr. Jamieson then moved the following modified resolution, which was carried unanimously, seconded by Dr. Fairfax Ross :—"That a deputation representing the staffs of the metropolitan hospitals should wait upon the Mayor and urge upon him the advisability of calling a meeting of the citizens of Sydney with a view of setting forth the urgent and imperative necessity of establishing a hospital for treatment of advanced cases of phthisis."

The following were then appointed a committee to wait upon the Mayor and urge him to call a public meeting, viz. :—Drs. Sydney Jones, Wilkinson, O'Neill, Purser, Jenkins, Hankins, Fairfax Ross, Jamieson (honorary secretary).

The Mayor of Sydney (Sir James Graham) has called a public meeting at the Town Hall for Monday, 23rd inst., at 8 p.m.

LETTERS TO THE EDITOR.

THE BATTLE OF THE CLUBS.

(*To the Editor of the Australasian Medical Gazette.*)

Dear Sir,—Touching the subject of medical men and their Lodges, I would urge that at this time the medical profession would abstain entirely from all newspaper correspondence on the matter individually. Let us discuss the matter first fully with the Lodges and their members when the time comes to do so. Then we would avoid one way in which bitter feeling would be sure to arise in the matter. Good feeling between the two parties, the doctors and their Lodges, will be the determining factor.

We are but asking that the present sixteen shillings a year shall not be made lower. I have not known an individual lodge member who would wish us to be paid less. The Lodges and their members have trying financial difficulties of their own just now, for which our intelligent sympathy as fellow-citizens is due. We can then rightly ask same from them, and I believe we shall obtain it.

I remain,
Yours very faithfully,
A. M. MEGGINSON, M.B., C.M.

FEDERATION OF THE MEDICAL SOCIETIES.

(*To the Editor of the Australasian Medical Gazette.*)

Sir.—In Great Britain, as well as in these States the relations between the medical profession and certain sections of the community are a source of great dissatisfaction. This state of things has caused much discussion, and has been followed by isolated action on the part of the profession, both in the old country and in Australia. It is, however. only by union and combined action that the present state of things can be altered.

Separation from Great Britain medically would be no wiser than separation politically, and none of us would support the latter under any circumstances. There seems little doubt but that the British Medical Association will now be willing to grant such powers of government as will make the Branches here practically independent—to give them, in fact, such liberty of action as the British Colonies enjoy under the British Parliament.

A federation of the Branches of the British Medical Association, and of all the other medical societies existing in Australia would make a powerful combination. The work carried on by the Defence Unions could be taken over, and aggressive action, as well as defensive, taken when thought necessary. A Benevolent Section would do what is now done by the Benevolent Societies, and provision could be made for insurance against accident and sickness — through some insurance society or otherwise—and even for life assurance.

Definite and fixed principles could be determined on for the performance of such work as contract practice. The Federated Societies could agree with the governing heads of the Friendly Societies, etc., as to the principles upon which medical attendance was to be given to the members, and only those Societies approved of by the Federation would be given medical attendance by the members. Provision would, of course, have to be made that non-recognised Societies did not make use of the medical officers of recognised bodies.

The various local divisions, or the practitioners in fixed districts, could determine on the details in accordance with the conditions existing locally.

The *Australasian Medical Gazette* could become the property of the Federated Associations. Thus, all conditions affecting our welfare would be dealt with under such a scheme, and all medical matters controlled by it. Let us remember that "Providence is on the side of the big battalions."

I am, yours etc.,
W. H. COUTIE.

CAN WE DO AWAY WITH THE CONTRACT SYSTEM?

(*To the Editor of the Australasian Medical Gazette*).

Sir,—Like many another practitioner whose lot in life does not seem over bright, I have pondered on the cause of the narrowness and dearth of outlook that at present characterise the life of the average medical practitioner.

That the present contract system is derogatory to our dignity, and the fountain and source of most of our misery, there can be little doubt.

Is it possible to do away with the system? I am told, on good authority, that the general practitioner in the United States is content with a dollar for advice and medicine. Would it be possible to get the men who at present depend on lodge work to give up their engagements with the flattering hope of receiving a dollar for advice and medicine instead of say, from sixpence to a shilling for advice?

Would it be fair to ask them to do so—to exchange a certain sixpence for a fraction of a doubtful dollar? One is more or less inevitably driven to the conclusion that a man who voluntarily takes such work—such degrading, monotonous, soul-killing work as lodge work—must be a weaker brother. and afraid of competition.

But, alas! who of us is not afraid of competition? Who of us does not, in his cowardice, prefer a safe mediocrity to a perilous eminence?

A man's family ties make a sad coward of him!

The powerfully-written letter which appears in the *B.M.J.*, dated August 3rd, 1901, from the pen of a "Bush Practitioner" is overwhelmingly truthful, and earns a mournful acquiescence from all of us. The struggle for existence is very keen, and unless the development of South Africa in the immediate future, prove sufficiently attractive to the recently-qualified men, who hurry out in their hundreds from the great teaching corporations of Great Britain and Ireland, to divert many who might otherwise wend their way to Australia, our prospects are indeed sad.

Would it be impossible to endeavour to profit from the experiences of Canada and the United States of America, if indeed it be true, that our brethren in these favoured lands have broken away from the oppressive yoke of the lodges?

Surely if it be true (and I fervently hope it be so), we too can work out our salvation. I who write these lines have but thirty lodge patients on my list, so that the reflections that are here written may seem ironical; but it is the thraldom of the lodge system that keeps me in a country town and prevents me from trying my luck in a large centre. Under the present conditions prevailing in all our larger towns, without lodges I should starve. I had better vegetate in rural obscurity than do such work.

Could the present contract system be abolished, it is my very candid belief, that most of the successful lodge doctors of our large centres, would treble or quadruple their incomes. They are, in many cases, very able men, who, if they did themselves justice, would be successful both in a professional and in a business sense.

But if the abandoned lodges were promptly taken under the wings of some unscrupulous practitioners, the fate of the present incumbents would be melancholy. In very truth their occupation would be gone.

I hope some more inventive brain than mine will tackle the subject. How can we give up lodge appointments and prevent unworthy members of our profession taking them?

I sorrowfully admit I cannot answer the question.

I am, Sir, etc.,
A LITTLE COUNTRY G.P.

A QUESTION OF PRIVILEGE.

(*To the Editor of the Australasian Medical Gazette.*)

SIR,—At the monthly meeting of the New South Wales Branch of the British Medical Association, held in August, Dr. Wilkinson, speaking to a point of privilege, made a long attack upon you for writing and publishing in the *Gazette* a leading article reflecting upon the attitude which he had maintained towards the Victoria Homes for Consumptives' scheme.

As it turns out that you did not write the article in question, a great deal of Dr. Wilkinson's attack becomes pointless. It is not, however, upon the main part of Dr. Wilkinson's speech that I wish to comment—no doubt you will do that. What I desire to say is upon the concluding part of it, in which Dr. Wilkinson says that you were guilty of "a gross breach of privilege" in permitting me to see, without his consent, a proof-copy of his paper on "The climate of the coast of New South Wales in relation to pulmonary tuberculosis," and further, that by so doing you had established "a most dangerous precedent." Now, sir, it is difficult to see wherein the danger lies, and I believe many precedents could be found for your action. But be that as it may, surely Dr. Wilkinson, instead of finding fault, should be thankful to you and to me for taking care that the criticism which I wrote should be made not on a verbal report or even upon notes of what he said, and which might not convey his exact meaning, but on his actual words. It was in the interests of truth, too, that my letter combating Dr. Wilkinson's views should appear in the same issue of the *Gazette* as his paper. Those interested in the matter had thus an opportunity of reading the opposed views at the same time.

Yours,
P. SYDNEY JONES.

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THE AUSTRALASIAN
MEDICAL GAZETTE.

EDITED FOR THE PROPRIETORS (PRO. TEM.) BY
W. H. CRAGO, SYDNEY, N.S.W.;
AND FOR THE OTHER BRANCHES OF THE
BRITISH MEDICAL ASSOCIATION BY
A. B. BROCKWAY, BRISBANE, Q.; H. W. BRYANT,
WILLIAMSTOWN, VIC.; J. B. GUNSON.
ADELAIDE, S.A.; AND J. MASON, OTAKI, N.Z.

SYDNEY, 20TH SEPTEMBER, 1901.

EDITORIALS.

DR. WILKINSON AND THE *AUSTRALASIAN MEDICAL GAZETTE.*

AT the last meeting of the New South Wales Branch the business was interrupted by Dr. Camac Wilkinson, who claimed, on the ground that an editorial entitled "The Climatic Treatment of Pulmonary Consumption," which appeared in our last issue, was a breach of the privileges of the Association, the right to move, without notice, a motion bearing on the subject. Dr. Wilkinson's claim was over-ruled by the Chairman, and Dr. Wilkinson thereupon moved

"That this meeting dissents from the Chairman's ruling." This motion was put to the meeting and met with the support of two members. The speech which Dr. Wilkinson made on the occasion, together with the correspondence which he read, will be found elsewhere in this issue (see p. 390). It has been published by us at his request, and in the form supplied to us by him. We have, however, taken the liberty of leaving blank spaces where the names of members of the Association are given by him in his report of the speech.

THE BRITISH CONGRESS ON TUBERCULOSIS.

◆

THE *British Medical Journal*, of July 27th, contains a full report of the principal papers read at the Congress on Tuberculosis held in London from July 22nd to July 26th 1901; also a report of the discussions that took place in the different sections. Professor Koch's address, naturally, takes first place. The chief points brought out in it are (1) that "tuberculosis is a preventable disease;" (2) that "sputum is the main source of infection in tuberculosis;" (3) the "differences between human and bovine tuberculosis"; (4) "is man susceptible to bovine tuberculosis?" (5) "that human sputum is the main source of human tuberculosis"; (6) "foci of tuberculous infection"; (7) "the need for hospitals for consumptives"; (8) "notification"; (9) "disinfection"; (10) "education of the public"; and (11) "sanatoria."

While Professor Koch's experiments seem to prove conclusively that human tuberculosis cannot be transmitted to cattle, the opposite statement, that bovine tuberculosis cannot be transmitted to man, cannot be so satisfactorily proved. While doubt remains, it is safer to err on the side of over-precaution. Lord Lister did well in pointing out the need for caution in this matter, and that the bacilli of bovine tuberculosis on entering the mesenteric glands of a human being, might rapidly lose their special bovine characteristics, and so be incapable of setting up tuberculosis when again injected into cattle. Professor Koch, while placing "hospitals for consumptives" in the foreground in the fight against tuberculosis, is also a strong advocate for the establishment of sanatoria, which will, he thinks, in the future, with certain necessary precautions, lead to the cure of 50 per cent. of the cases treated in them. Professor Brouardel dealt with "the measures adopted by different nations for the prevention of consumption," and from one sentence in his address we learn that "At Sydney a fine of £1 is imposed on persons for spitting in the streets." The address that is, perhaps, of most interest to the profession in Australia at the present moment, in view of the controversy going on as to the most suitable sites for sanatoria, is the introductory address on the "classification of climates, and comparisons of results," by C. Theodore Williams. In Dr. Williams' opinion—

> The climate which best fulfils the conditions for open-air treatment need not be a very warm or a very cold one, but should be dry and stimulating, with abundant sunshine, admitting of much exercise and producing nervous and muscular vigor.

He gives statistics, collected over a period of 35 years, of cases treated in "marine climates," in "warm, dry climates," and in "mountain climates," and the last comes out at the top of the list with 87 per cent. improved, out of a total of 385 cases. The average length of illness of these cases before treatment was two years and one month. Sir Hermann Weber said "his experience did not lead him to take quite as favorable a view of marine climates as Dr. Williams. The high winds which occurred on the sea-coast were unfavorable."

It is devoutly to be hoped that the great prominence which has been given to the subject of tuberculosis all the world over, will stimulate the authorities and residents of the Australian States to take active measures to combat this dread disease, which yearly claims so many victims. A meeting of the staffs of the three principal hospitals in Sydney has lately been held to devise means of obtaining a hospital for consumptives, and as a result of their meeting the Mayor (Sir James Graham) has called a public meeting for Monday, 23rd inst.

As regards the best site for a sanatorium, no one site in New South Wales can be the *most suitable* for all periods of the year, but the consensus of opinion, both medical and lay, certainly is that the dry, inland air is preferable to the moist air of the sea coast, at all events for cases originating in Sydney. It is possible, considering the benefit a change of climate has on most individuals, that a sanatorium near the sea coast might be suitable for cases of tuberculosis coming from the inland districts, but the experience of the Coast Hospital in the treatment of cases of phthisis has not been at all favourable.

LORD ROBERTS, in his final dispatch on the South African campaign, specially mentioned Majors Eames and MacCormick, also Lieutenants Newmarch, Dick, and Horsfall for distinguished service in the field.

THE CARE OF CONSUMPTIVES IN THE DIFFERENT COUNTRIES OF THE WORLD.

"Of late years no disease has been regarded with so much attention as has consumption. The progress effected in the manner and methods of treatment is well exemplified by the following statistics, compiled by S. W. Hynes, Examiner of Accounts of Institutions in the Department of Finance. From this list it will be gathered that Germany leads the nations with respect to the number of sanatoria for the treatment of tuberculosis, established within a comparatively recent period.

"In Germany there have been established, in the last few years, nearly one hundred sanatoria for the treatment of consumptives, with a combined capacity of five thousand. These have been established partly through the Government, partly through private charity, and largely through life insurance companies. In Germany, the life insurance companies find it profitable to send their insured, who have tuberculosis, to sanatoria for treatment, because of what they can save in the payment of insurance money with those who get well, and the deferment of such payment, with those whose lives are prolonged, They also profit by the prevention of the spread of the disease. In England, prior to the prevention movement on behalf of the consumptives, there were already hospital accommodation to the extent of about 2,000 beds. Since this movement began, many new sanatoria have been opened, and the old ones have been improved. England has probably 3,000 beds for consumptives at the present time. In France, about 2,800 beds for tuberculous subjects existed when the present movement began, and sanatoria, either have been, or are being built since then at Lyons, Paris, Orleans, Bordeaux, Nancy, Lille, Havre, Canet, and Cimiez. The French Government is about completing a sanatorium at Agincourt, at an outlay of over a million francs.

"In Russia, under the leadership of the Czar, five sanatoria have already been established, and a number are under way. In Italy, sanatoria are being established at Arignano, Padua, Umbria, Naples, Messina, Tarent, Cadore, and Milan. A law has also been passed requiring existing hospitals to set aside wards for the treatment of consumptives. In Norway, since 1897, three sanatoria have been established, and two are under way, all under the Government. A number of private sanatoria have also been opened. In Denmark, a hospital for consumptives, with ninety-four beds, was opened in 1900 for the use of the entire country, and another with 110 beds, for the use of the city of Copenhagen only. In Sweden, a large sanatorium for consumptives is at present being built as a jubilee memorial. In Switzerland, there are already seven sanatoria for poor consumptives, and a number of others have been projected. In Austria, a sanatorium has been established at Alland, and similar institutions are projected at Bohemia, at Machren, and at Stiermarck. In Hungary, a sanatorium for consumptives is at present being erected as a memorial to the late Queen Elizabeth. In Poland, three sanatoria for consumptives have recently been erected. In Spain, under the leadership of the Royal Family, a large national sanatorium for consumptives has been opened at Porta Coli. In Portugal, Queen Amelia has recently given 20,000,000 reis for the establishment of a tuberculous hospital. In Holland, the young Queen, within a year, has given a large sum of money for the establishment of a sanatorium for consumptives. In Canada, there are, as yet, but two sanatoria for consumptives, with a combined capacity of seventy-five beds. In the United States, the national Government has established sanatoria in New Mexico for the treatment of tuberculous marine-hospital patients, and for consumptives of the Army. The State of New York has at present ten sanatoria for consumptives under private management, and one projected sanatorium, to be supported by the State. They have an aggregate of 600 beds. Of the above-named ten, three are situated in the city of New York."—*New York Medical Record*, July 20th, 1901.

ADULTERATED FOOD.

In our issue of April 20th, 1898, we drew attention to the amount of unsound and adulterated food that was being consumed in the Australasian States. The report of Dr. Ham, of Brisbane, which we published in our August issue, gives the results of the analysis of 123 samples of foods, beverages, drugs, etc., obtained in the ordinary way from shops in Brisbane by food inspectors.

Dr. Ham found that butter was sometimes adulterated with boric acid, and condemns the indiscriminate use of that drug as a preservative. Milk is preserved by means of formalin; beer by salicylic acid. A common method of making whiskey is by diluting essence of whiskey with proof spirit, and then artificially beading the mixture by adding sulphuric acid and olive oil.

We do not know that the use of boric acid as a preservative is to be altogether condemned in hot climates. It undoubtedly acts as a preservative in small quantities, and its toxic effects are very slight. Of course, children and delicate persons may be affected by small quantities, but with proper precautions, such as labelling articles containing the drug, we do not think its use should be absolutely prohibited. It is better to eat butter preserved with boric acid than to eat rancid butter, and frequently that is the only alternative.

Nor can we condemn the restricted use of formalin as a preservative of milk. A very weak solution of formaldehide (1 in 50,000) will preserve milk for twenty-four hours. It is stated that formaldehide cannot be detected by analysis, but Leys states that it may be detected by adding together 25 c.c. of the suspected fluid, 10 c.c. of a colourless solution of phoroglucin (1 gm. in 1 litre) and from 5 to 10 c c. of a weak solution of potash, shaking in a test tube. If formaldehide be present, a red colour is produced which disappears after a few minutes.

Salicylic acid is a drug which should be condemned unsparingly as a food preservative. It is possessed of marked caustic properties when used in strength, and produces severe toxic symptoms when partaken of for a lengthened period. Salicylic acid has a cumulative property, and causes dyspepsia and other symptoms. It undoubtedly renders food unfit for human consumption.

Food adulteration should be put a stop to by the Boards of Health in the various States of the Commonwealth. Inspection by competent men, and heavy penalties for the sale of adulterated food, will do much to remedy the existing state of affairs. It is of little use exposing the methods of adulteration if the offenders go "scot-free."

Trained Male Nurse seeks engagement in mental or ordinary medical cases. Has had considerable experience in mental nursing, and is accustomed to travelling with patients to Europe and in the Australasian states. Unexceptional testimonials. References kindly permitted to Drs. F. N. Manning, Jarvie Hood, W. E. Warren, T. S. Dixson.

Address: R. T. O'Neill,
68 Crown Street,
Nr. William St.
(Late 17 Leicester St., Sydney.)

Telephone No. 166 William Street.

THE HOSPITAL SATURDAY FUND.

II.

Recent Developments.

In our last issue we referred at some length to the nature of the operations of the Hospital Saturday Fund, as affecting the metropolitan general hospitals, in connection with the proposed system of payment at per diem for patients who are industrial subscribers to the fund. In the interval the whole question has come rapidly to the front, on account of the action of the Sydney and Prince Alfred Hospital authorities, in declining flatly to enter into the arrangement proposed. It will be remembered that recently the executive of the fund intimated that in future the hospitals would be paid 4s. per diem for each patient admitted, who had been recommended by the fund, and who possessed its certificate. This, of course, meant that the fund proposed to make a purely business matter of the whole thing, and, in the event of any of its industrial subscribers needing hospital treatment, that they should receive it gratuitously so far as they were individually concerned, but that the hospitals should be guaranteed 4s. per diem while they were in being treated. Superficially this might be regarded as a very good arrangement, and one which the hospitals should snap at. In fact it was put forward in such a way that there was apparently no idea that such a good thing would be discussed at all. But to their credit the Sydney and Prince Alfred Hospital Boards were not to be tempted by such a bait, and replied by reasserting the principle that no patient could be admitted who is not medically fit and financially unfit. This unexpected action has induced the executive of the Hospital Saturday Fund to come out into the open, and champion its cause. This is a most fortunate thing for the medical profession, for it has resulted in an open declaration by the fund authorities of what was only previously assumed—viz., that the industrial subscribers to the fund are to all intents and purposes a club, the members of which desire to obtain medical treatment in the hospitals without paying for it. This declaration has been made in two different ways. A meeting of the industrial subscribers to the fund was held on the 6th instant, at the Sydney Town Hall, when the industrial honorary secretary made a statement which is reported (in part) as follows:—"If the hospitals would not come to terms, the industrial section *must begin to dictate as to where* *their subscriptions should go.* In the Sydney Hospital since 1893 one bed in every five was for paying patients, and in the Prince Alfred Hospital, one bed in every three was occupied by a *paying patient*, which showed that the hospitals were not, as claimed, for the destitute." This declaration contains a gratuitous insult and a fiction in one. The hospitals certainly do not want money which is hedged about by such conditions as those sought to be imposed, and the statement that they have one patient in three and one in five who are paying is outrageously absurd. If this were true the hospitals would not need to derive such large sums from the public, and the State. As a matter of fact, at Prince Alfred Hospital last year, only £2,201 was received from all patients—indoor and out—out of a total revenue of £17,600. The latter sum was expended in the hospital, and no portion of it went to the honorary medical staff; so that the idea of one third of the patients "paying" for themselves is nonsensical. Shortly before this meeting was held, Mr. D. A. Rogers, the industrial honorary secretary of the fund, who was accompanied by several other executive officers, let himself go to a representative of the *Australian Star* in an interview, and, unwittingly perhaps, said one or two things which are very instructive. In explaining the action taken by the executive of the fund, he stated that great efforts had been made to secure subscriptions from people employed in workshops, factories, etc., and added, "Naturally enough, workmen making these payments, looked for some small equivalent." The equivalent required by the patients is the privilege of being accepted by the hospitals at fixed rates of payment or no payment at all, and without enquiry as to their financial status, which, for a contribution of one penny per week is not a bad return. So far as can be gathered, this system of demanding hospital treatment as a return for these industrial collections, is quite a new feature in hospital charity. In Great Britain, where the Hospital Saturday originated, and where it is largely carried out by the working classes, the contribution is a purely voluntary one, and no concession is asked for in return. The working classes, in a great many cases, contribute a very large proportion of the income of hospitals, ranging up to 49 per cent.; but there is no record of a stipulation for "some small equivalent." The equivalent given lies in the fact that those who use the hospitals are almost entirely of the artisan and labouring classes, as in Sydney, and it is pretty certain that most of the employees here as there would be prepared, if asked, to contribute voluntarily, as they do now in numerous cases, with the knowledge that they are helping a deserving cause, and that if they are ever needing hospital treatment themselves they can get it. It certainly is not charity to say, "I will give one penny a week, if you will guarantee me free hospital treatment," which is the case in Sydney, on Mr. Rogers' own showing. As a matter of fact, the whole thing is largely a business matter with these subscribers. Mr. Rogers says that, "such patients did not claim exemption from payment, but thought that it should be left to them to make a voluntary gift of as much as they could afford." On this point it may be said that the books of one of the two leading hospitals do not show a single voluntary contribution of this nature by Hospital Saturday fund nominees. The impression is therefore very strongly conveyed that the system is regarded by the industrial subscribers purely as a business transaction of a very satisfactory nature to them, and that they resent having to give it up. The whole point of the matter is that every case for admission to the hospital should be treated on its own merits. No two cases are alike, and it is absurd to have a hard and fast rule that a seamstress earning 10s. or 12s. a week should be treated on the same footing as the head of a department in a big house, earning £5 or £6 a week, or even an artisan in receipt of £3 a week. While the hospital might accept one case upon a contribution by the patient of a few shillings a week towards the bare cost of his or her board, medicine, etc., in another the contribution should be perhaps at least £2 a week, or the patient should not be admitted at all. It is therefore out of the question that there should be bargaining in the way proposed. This of course involves the matter of the interrogation of patients as to their position in life, which the industrial subscribers resent. They seem to think that because they of their charity contribute 1d. a week they should be allowed to walk into the hospitals, demand a bed, and call upon the fund, which is primarily raised by persons of all classes, to pay a sum for their maintenance. Of course, the hospitals being firstly for those who cannot afford to pay anything, this proposition is untenable for a moment, and the hospitals are to be commended for the stand they have taken in refusing to make an exception of these subscribers, or to make a compact with a sort of club, for the treatment of its members on special terms, and independently of their position in life.

THE TABLESPOON AS A MEASURE.

We notice that in Victoria the attention of both medical practitioners and pharmacists has been recently directed to the incongruity of considering that "a tablespoonful" is equivalent to a half fluid ounce, when it really means nearly one fluid ounce—that is, double the quantity, and that a dessertspoonful is equivalent to two fluid drachms and a teaspoonful is equivalent to a fluid drachm.

Under any circumstances, however, this may be admitted to be a matter worth consideration in our own State.

For years past students have had demonstrated to them that the actual capacity of the current table-, dessert-, and teaspoonful, is very different from the traditional. Indeed, some specimens of tablespoons can even be filled so as to contain *nine* fluid drachms. For practical purposes, our experience is that of the spoons used in this State, the tablespoon is one ounce, the dessertspoon a half-ounce, and the teaspoon two drachms.

The shape of a spoon is so unsatisfactory for measuring purposes that one patient will fill it to perhaps only the bulk of six drachms, where another will do so to half as much more. Unfortunately, in the case of a fluid drachm, we are worse off still, having only the afternoon teaspoon and the eggspoon (metal), but these vary so much in size as almost to compare in exactitude with the Frenchmen's "pincée" or German's "messerspitze."

What is the remedy? For the poorest we have known the doses for 8 oz. mixtures made up to 12 oz. bulk; but this still lets the patient finish the bottle, if not in half the proper time, in three-quarters of it. Indeed, among the poor the "spoon" exhibits great vagaries in containing power, oscillating in this respect from that of the large silver or well-plated spoon of the more monied people, to that of the smaller pewter spoon, which, dented in and bent down on the side, may not suffice to hold even the traditional half fluid ounce.

Again, there is the simple yet satisfactory method of providing a small phial marked by the chemist, and this is probably as good as any.

But one may order a measure glass. Experience proves that though the best of these are of delightful accuracy, they are so prone to break in cleaning that not infrequently patients, grudging the expense, take to the ordinary spoon, and noting on the bottle that, for instance, a tablespoonful is the dose, thus at once unwittingly take twice the amount intended. As regards the cheap, strong glasses, the drawback at times has been that the marks were inaccurate. We have even seen sixty minims, in one minim measure, fill another measure up to the mark for ninety minims.

So long as a tablespoonful is considered to be a half fluid ounce, the patients will not be helped by the direction "half ounce by measure"—for the reasons that they think it means a tablespoonful by measure—and that "by measure" merely means the act of filling.

We suggest that the easiest way out of the difficulty is to let pharmacists know that one tablespoonful is considered by medical practitioners as approximately one ounce, the dessertspoonful as half of an ounce, and the teaspoonful as two drachms. The fact being so self evident it seems only reasonable to expect that the formal recognition of it would be rapid.

HUNTER RIVER (N.S.W.) COMBINED SANITARY DISTRICT.

REPORT OF THE MEDICAL OFFICER OF HEALTH FOR THE YEAR 1900; BY ROBERT DICK, M.B., C.M. SYD., D.P.H. CAMB.

(Abstract.)

DURING the past twelve months several important matters from a public health standpoint have been prominently brought before the local authorities in the district. Probably the one to which the most serious attention was given was that of bubonic plague. The fact of this disease having gained a foothold in different cities in Australia, and more particularly in seaport towns in connection with which a large direct trade is done with this district, made the position of things still more grave. The fear which existed lest the disease should make its appearance locally convinced the local authorities that the time for action had arrived in regard to systematic house to house inspection, removal of or improvement in insanitary premises, abatement of nuisances, and so forth. It is satisfactory to relate that no case of plague developed in the district, nor was it brought hither from infected districts by ships or other means of communication.

There were 62 cases of scarlet fever notified during the year. Cases of the disease were reported in every month of the year except July. In only one town (East Maitland) were the cases more numerous than in 1899, there being 11 more notifications received. The epidemic of 1898 practically visited all the towns in the district. During its prevalence 445 cases were notified. Cases of the disease still crop up, however, and it is more than probable that with a new generation of susceptible individuals, which will arise during the next two or three years, we shall experience another epidemic. Of the 62 cases notified, 50 per cent. of them were attending one or other of the schools in the district. There were no deaths from scarlet fever during the year. There were 34 cases reported from individual houses, whilst there were 9 houses in which 2 cases occurred in each, 1 house in which 3 cases occurred, and one house in which 4 cases occurred. Three cases of the disease were notified from amongst the children in the Hospital for Insane at Newcastle the infection having been evidently carried into the institution from outside, probably by infected clothing. The cases were promptly isolated and the wards disinfected. At the present time scarcely any efforts are made in the district to stamp out the infection by means of efficient isolation and disinfection. The disease is, as a rule, so mild in character that it necessitates, in few instances, the confinement of the patient to bed for more than two or three days, with the result that patients, while in an infectious stage, are allowed to roam about and mix with other susceptible individuals in the invaded house or elsewhere, who in turn contract the disease. Then again, no proper disinfection of sick rooms and clothing is undertaken. As a rule, this procedure is left to the householders themselves, who carry it out in the most perfunctory and inadequate manner, if they do it at all. There was no evidence to prove that the prevalence of the disease was attributable to the milk supply in any instance.

There were 24 cases of diphtheria notified during 1900. One other case was reported, but it was clear that the disease was contracted in an outside district. In 9 of the 17 municipalities in the district there were no cases of this disease reported during the year. In Carrington, Morpeth, Newcastle, Raymond Terrace, and Wickham the cases were more numerous during this year than last. Cases of the disease occurred during every month of the year except November; the greatest number being notified in December, viz., 6, and the next highest in April and May 4 each. Thirteen of the cases reported were removed to isolation wards at the general hospitals for treatment. Twenty cases occurred at individual households, whilst 2 dwellings furnished 2 cases each. At 7 of the invaded premises there were obvious sanitary defects, such as ill-constructed drains in connection with cesspools, accumulations of foul garbage, extremely damp houses, etc.

During 1900 there were 165 cases (9 under 5 years of age) of typhoid fever notified from the municipal district. In the police district of Newcastle, Maitland, and Raymond Terrace (in which are to be found the unincorporated towns of Minmi, West Wallsend, Charlestown, Dudley, Hinton), there were 143 cases of this disease as compared with 86 in 1899, and 145 in 1898. More cases were reported during 1900, as compared with 1899 in the following municipal districts:—Carrington, Greta, Lambton, East Maitland, and Stockton. In Plattsburg and Wickham the same number were notified viz.—six and fifteen respectively, whilst in the remaining municipalities there were fewer cases. The disease was present in the district throughout the whole year—each month furnishing cases. The greatest numbers were reported, however, during the months January to May inclusive, and in November and December, while the least number occurred in the months June to October inclusive. This illustrates fairly well the usual seasonal prevalence of the disease. In addition to the foregoing there were 10 cases of typhoid reported from ships lying in the Port of Newcastle. Households affected.—In the municipal districts 133 cases were reported from individual houses; in 12 houses there were 2 each, in one house 3, and in one house 5 cases of the disease. It appeared on investigation that where secondary and subsequent cases occurred in invaded houses that the disease had been transmitted by personal contact. In those instances there were 3 and 5 cases in individual houses, there was considerable overcrowding so far as sleeping accommodation was concerned. It was learnt that at 16 of the invaded houses there had been previous cases of typhoid during the occupancy of the then tenants, in certain instances the interval being from one to two years, and at 6 of the houses it was alleged there had been cases of the disease during the occupancy of previous tenants. In some instances as long as seven years previously. The great risk which other members of a household run of contracting the disease from an existing case housed in small and overcrowded premises where imperfect isolation only is possible and where inadequate methods of disinfection and disposal of infectious excreta are practised, has been exemplified in several instances during the year. It is a great pity that greater efforts are not made to secure the removal of typhoid cases to hospital, especially where the conditions of the dwelling where the patient is housed and the surrounding circumstances are not suitable for home treatment. There is no law in this State by which the removal to hospital of patients suffering from infectious diseases can be brought about. The inhabitants of the district require educating in the matter of the importance of early removal of the sick to hospital in those cases where home conditions are unsuitable (a frequent occurrence) and, doubtless, the medical practitioners in the district can do much in securing the desired result.

Water Supply.—In the municipal areas 62 per cent. of the invaded houses were provided with the district water supply, whilst 38 per cent. of them were without it. At 52 per cent. of the premises there were underground tanks, the water from which was used wholly or in part for domestic purposes. The water in underground tanks at two premises was found on analysis to be so polluted as to be unfit for domestic use, and these tanks were in consequence closed. Of the municipal towns, Raymond Terrace, Greta, and Stockton are without public water supplies. In each of these places rain water stored in tanks above or below ground is used for domestic purposes. In the unincorporated town of Minmi the district water supply is available, but it is exceptional to find it laid on to the houses. Out of the twenty-two premises invaded by typhoid fever in this town during the year, at only one of them was the district water made use of. At the remaining places underground tanks were present. At West Wallsend, Dudley, and Charlestown, rain water stored in iron tanks or underground receptacles forms the main source of supply, whilst shallow wells are also not infrequently to be found. Generally speaking, in Greta and in the unincorporated towns just referred to, there is great need of improvement in the present methods of storing water which is used for domestic purposes. Underground tanks which abound are commonly constructed with no provision for keeping out surface waters, dust and filth of various kinds. West Wallsend is sadly in need of a good public water supply. This town occupies a supremely bad position in this district in regard to the prevalence of typhoid fever. The need of improvement in the water supplies and in the matter of excrement removal and disposal in this place have been referred to in previous reports. There was no known reason for blaming the milk supply as a cause of the occurrence of the disease. In those cases where a large number of the invaded houses were supplied by individual dairies these did a large trade, and, moreover, there was no special incidence of the disease in point of time, the cases being spread over several months of the year. Shell fish did not appear to play any part in spreading the disease. Privy arrangements at invaded houses.—In municipal districts 4 per cent. of the invaded houses were provided with water-closets, 58 per cent. were provided with pails which were attended to by the different councils' scavengers, 10 per cent. had pails which were attended to by householders themselves, and 28 per cent. of the premises had cesspits. In unincorporated towns—at Minmi quite recently a pail service has been instituted, the work being carried out by a duly appointed scavenger. In West Wallsend, Dudley, and Charlestown the privys are as a general rule furnished with some form of receptacle which is most frequently of improper type (such as kerosene tins, wooden boxes, disused washing tubs, and so forth). Cesspits are not infrequent, and also several instances were met with where no receptacle of any kind is used in the privy. The inhabitants in these towns attended to the disposal of excrement, and this is carried out on their premises. Special pails charged with a disinfectant were supplied to invaded houses by the following local authorities:—Newcastle, Waratah, Wickham, Hamilton, Adamstown, Wallsend, Plattsburg, and Morpeth. Those which did not adopt this very necessary practice were Carrington, East Maitland, Greta, Stockton, Lambton, and New Lambton. In West Maitland towards the end of the year this practice was started. It is matter for regret that this procedure is not in general use throughout those districts where conservancy systems are present. Where special pails are not provided, it is a common practice for infectious excreta to be buried in the allotment attached to the dwellings. This should not be tolerated by the local authorities, seeing that it is surrounded with considerable danger. Where cesspits exist the infectious materials are deposited in them.

At 8 of the 20 premises which were invaded with the disease in Newcastle, and which were connected with the sewers, it was found that there were obvious defects in the drainage arrangements, such as the following:—Drains untrapped and freely opening on the surface of the ground, leaky soil pipes, bath and lavatory wastes connected directly with drains, large hole at junction of closet basin with soil pipe, foul and defective D traps. It is highly probable that if the drainage systems had been tested by the smoke or other process other and equally serious defects would have been discovered, both at these and other premises. Attention has been repeatedly drawn to the highly objectionable pail system carried out in this town. As showing the sort of thing which may happen when (as occurs in this case) householders are left to decide as to the interval which may elapse before the pails are emptied, the following examples afford illustrations in connection with premises from which cases of typhoid were notified during the year:—In 1 case there were 9 inhabitants, and the pail was emptied at intervals of 5 weeks; in another case there were 8 inhabitants, the pail being emptied every 4 weeks; in another case there were 11 inhabitants, the interval being 3 weeks. Other similar examples might be given. The defects which have been, and which continue to be found in the drainage arrangements in this town point most clearly to the probability of the wholesale prevalence of similar conditions. In many ways the present pail system is probably one of the most objectionable that could be found. To these potent factors in the propagation and spread of typhoid and similar diseases must be added the imperfect system of storage and bestowal of garbage which is found to exist. It is in these matters, amongst others, that radical improvements require to be made in Newcastle.

The following is a brief description of the quarantine station and the present arrangements there:—The reserve for quarantine purposes comprises 80 acres of land with ocean and harbour frontages. It is situated at about 3 miles from the populous part of Stockton township, from which it is separated by a stretch of dense scrub land. The road connecting Stockton with Fullerton Cove passes the station along its harbour front, but is distant from the hospital building by about 300 yards—the interval between the enclosed area and the road being covered by fairly close bush. A branch road leads from the harbour front (where a jetty is to be constructed in connection with the establishment), to the entrance gates of the station. A belt of dense scrub about 150 yards wide lies between the station and its ocean front. The present enclosed area comprises about 21 acres. A substantial barbed-wire fence surrounds it. The land for the most part is level, except for a slight ridge along the harbour boundary. The mean height above sea-level is not more than 20 feet. The soil is of a loose, sandy nature. A number of trees are growing in different parts of the grounds. The buildings are grouped in the following manner:—Hospital wards, administrative buildings, and blocks for contacts. These groups are separate and distinct from each other. The hospital wards are located within an area of about 6 acres of land, which is hemmed in by a galvanised-iron fence 6 feet high, and outside this again there is a neutral zone 66 feet wide, surrounded by a stout barbed-wire fence. The blocks for "contacts" are situated on an area of about 10 acres of land, which is enclosed by a barbed-wire fence. The administrative buildings are placed between the areas devoted to the wards and contacts, from which they are separated by the wire fencing abovementioned. The areas of land on which the different blocks of buildings are placed are separated from the boundary fence of the station by a neutral zone 66 feet wide. The buildings, with certain exceptions, are constructed of wood, elevated about 3 feet off the ground on brick piers. The roofs are galvanised iron coated with red oxide paint. The hospital buildings, of which there are two, are built on the pavilion plan. Each pavilion is divided into two wards, each of which is made to accommodate six patients. A nurse's duty room is placed between the wards. The whole interior of the wards is lined with fine corrugated iron to facilitate cleansing operations. The wards are well lighted and very freely ventilated. A covered verandah, 8 feet wide, runs completely round each pavilion. Wheeled baths are provided in connection with each ward. Privy accommodation is built off the at the ends of the pavilions. At the entrance to the hospital grounds there is a changing-room with bath-room attached. A small mortuary is placed at the far end of the hospital enclosure. The buildings for "contacts" (that is, for persons who are or who have lately been in association with the patient or patients, and who are in consequence detained for a variable period according to the nature of the disease), are 2 in number. They are built on the pavilion plan. Each is capable of accommodating 20 persons. The interior of each building is lined with corrugated iron, well lighted, and freely ventilated. The interior is divided up into cubicles by means of wooden partitions 7 feet high. Each cubicle is made to accommodate 2 persons only. At the end of each pavilion there is a large dining and sitting room, a lavatory is also present. At the other end of the building there is a bath-room. A covered verandah, 8 feet wide, runs round each pavilion. Detached privy accommodation is provided. The administrative block includes detached wooden buildings for a doctor, nurses, female attendants, male attendants. The kitchen and laundry are constructed of corrugated iron. There is also a building for fumigation purposes. The doctor's, nurse's, and attendant's quarters are complete in themselves, including, as they do, living and sleeping rooms, bathroom and privy accommodation. Provision has been made for 1 medical officer, 8 nurses, 5 female and 4 male attendants. The laundry is divided into 2 parts, and 1 for dealing with infected, and the other for non-infected, articles. In the case of all the arrangements there is ample room for extension in the future, should occasion require. The water supply for the station is partly provided for by means of rain water storage tanks. Provision has also been made for supplying the Hunter District water. It should be added that water of good quality is to be had by sinking wells in the neighbourhood. The artificial lighting of the buildings will be done with petroleum or acetylene. A conservancy (pail) system has been provided for dealing with excreta, a crematory being used for infected materials. The cost of the buildings and appurtenances has amounted to something like £5,500. Up to the present no furniture has been provided for any part of the establishment. This want should be supplied with the least possible delay. The necessary articles were requisitioned for some months ago. In connection with the working of the Quarantine Station, it is evident, when its location is considered, that to reach it from the Newcastle side some form of steam tender will be required. In the first place, a suitable depôt with landing stage is necessary on the Newcastle shore. Efforts have been made to obtain this for the past three years or more, and it is now satisfactory to be able to state that there is every probability of this matter being settled almost immediately. The piece of land selected for the purpose lies near the foot of Merewether Street, Newcastle. At the depot, in addition to the landing stage, arrangements will be made for housing the ambulance waggon, which is being provided for the district's use, and for a steam disinfecting chamber for the efficient treatment of infected articles of clothing, etc., removed from ships in the port and from dwellings on the land side. Accommodation for the ambulance driver and disinfecting staff will also be made available.

During the year I inspected the 188 dairies situated within the municipal areas, and in addition, thirty-two of those in the Newcastle and Maitland Police Districts. Reports on the condition of these places were forwarded to the various local authorities, improvements being recommended in regard to a number of the premises. The number of dairies in the municipal areas has diminished by eight during the year, and there seems a tendency for this decrease to continue and probably grow larger. Most of the dairymen who have ceased trading were in a small way of business. The discontinuance of these is not to be regretted, for it is not unfrequently found that the small dairies, where one or two cows only are milked, are imperfectly equipped as regards necessary conveniences for carrying on the business in a proper manner. The diminution of dairies in the municipal districts, and the consequent increasing supplies of milk from dairies outside the towns, has, perhaps, not everything in its favour, since the latter dairies, owing to their much more isolated positions, are not so likely to be subjected to the same frequent inspection and supervision as those located in the towns themselves. During the year a veterinary inspector of the Board of Health inspected the 1,457 dairy cattle belonging to the dairymen in the municipal areas, and also 3,685 of those in the Newcastle and Maitland Police Districts. Of the former number, six, and of the latter, eleven were found diseased and were destroyed. The disease from which eleven of these condemned animals suffered was tuberculosis, whilst the remaining six were affected with cancer. During the year I tested at dairies in the district two milch cows which showed suspicions of having tuberculosis. In both cases, however, the test proved the absence of this disease. There were eight cases of typhoid fever notified from dairy premises in the district during the year. In seven instances the business was suspended during the illness of the patient and until disinfection of the premises had been carried out after recovery, whilst in the remaining case the patient was removed immediately to hospital, and after the premises had been disinfected, the business was allowed to continue. In no instance, so far as observation and investigation went, was there any reason for thinking that other cases of this disease which occurred in any district during the year were due to infection having been conveyed by milk supplied from any of these dairies.

A matter to which some attention has been given during the year is the question of the suitable and effective disposal of fluid wastes from butter factories and creameries. In sewered towns, or where tidal streams exist, usually no difficulty is experienced; but in towns and other places not so circumstanced, difficulties are not infrequently met with. The practice adopted in some cases is to collect all the fluid wastes in a tank, and in this they are removed to a distance and scattered over an area of ground. In other cases, the fluids are allowed to run along a channel not far removed from the factory, in which case nuisance is very soon experienced. A method which has been found to work satisfactorily in parts of this district, and which has, on my suggestion, been carried out recently in a large factory, is that of resorting to irrigation of the fluids over an area of worked land, the fluids being run to the patch from an elevated tank. In this practice it is necessary to see that the area of distribution is frequently changed and the surface of the land worked over. In stiff and, very probably, in other soils, under-drainage is desirable. There remains to be mentioned a method, which, certainly, is deserving of trial in connection with this subject. This is the septic tank system of treatment. I feel sure that if it can be practically proved that this method is capable of dealing successfully with the fluid wastes from these factories, a decided step in advance will have been made; for with this method made available the difficulties which at present time often surround the proper disposal of wastes from these establishments, in non-sewered places at least, will be overcome in a thoroughly efficient manner, and probably at no great cost.

In regard to the subject of the inspection of meat used for human food in this district, it may be said that the same unsatisfactory state of things which has been commented upon before still exists. Whilst the meat killed in slaughter-houses under the jurisdiction of the Waratah local authority is carefully inspected (at least in the case of about 88 per cent. of it), that slaughtered in other districts is practically not subjected to any kind of supervision, with the result that a considerable amount of diseased and unwholesome meat is dispensed to the inhabitants.

MR. LOXTON, of the Inter-State Medical Agency, Sydney, writes to say that his agency had nothing to do with the filling of the appointment in West Australia mentioned in a letter on "Hospital Abuse" in our last issue.

PUBLIC HEALTH.

The following regulations have been adopted by the N.S.W. Board of Health as to berthing vessels arriving from foreign plague ports :—"In the case of vessels arriving at this port after having berthed alongside a wharf at any port or place within his Majesty's dominions at which plague is, or is believed to be, prevalent, if they present a certificate from the duly constituted port health authorities that during such berthing the vessel has been fended off and otherwise adequately protected against access of shore rats, the board will accept such certificate, and treat the vessel as though she had not so berthed alongside such wharf. In the case of vessels arriving from ports not within his Majesty's dominions no certificate whatsoever will be accepted as exempting from special treatment unless the precautionary measures taken to prevent access of shore rats to the vessel are described and attested by his Majesty's Consular representative at the port or ports concerned. In all cases the board reserves to itself the right to depart from or vary these or any directions, so far as may become necessary in the interests of the public health."

Influenza has been epidemic in Sydney during the past two months.

Close on £500 was raised amongst a few well-wishers of the Victorian Sanatorium for Consumptives, the object being to claim the sum of £2,300 offered by a lady in New South Wales when a similar amount has been subscribed in Victoria.

Eighty-five rats, taken at different parts of the city of Sydney recently, were examined in the laboratory of the Board of Health. The principal assistant medical officer (Dr. Frank Tidswell) reported that none of the animals showed any signs of being infected with plague or any other infectious disease.

The report of the New South Wales Board of Health on leprosy during the year 1899 has just been published. During the year nine persons were reported to the Board under the Leprosy Act, as being suspected lepers. One only of them was eventually admitted to the lazaret under warrants which were issued by the Board after careful investigation. A Chinese, in whose case the diagnosis of leprosy was not established, although grounds of suspicion existed, was allowed to return to his home on the Clarence River, with a view to his being re-examined at a future date should it be deemed necessary. The remainder were found to be suffering from some disease other than leprosy. Two patients died during the year—a native of New South Wales of European descent, and a native of India. Thus the number remaining in the lazaret on 31st December, 1899, was thirteen persons; ten were whites, eight of whom (including one female) were natives of New South Wales of European descent, one was a European native of Fiji, and one was a native of the United States of America. Of the coloured lepers, one was a Javanese, one an aboriginal of Tanna (New Hebrides), and one (female) a native of China. The total number of persons admitted since 1883, when patients first began to be received (though the notification of leprosy was first made compulsory, and the detention of lepers provided for by law only towards the end of 1890), is sixty-eight. Distributed under nationalities, the account stands as follows :— Natives of New South Wales, nineteen of whom ten have died and one was released; of Queensland, one, deceased; of England, two, deceased; of Ireland, two, deceased; of New Zealand, one, deceased; of Fiji, one; of Germany, one, deceased; of Belgium, one, deceased; of the United States of America, one; and all of these were whites, of European descent. There were also thirty-three natives of China, of whom eleven have died, and twenty-one have been returned to their own country; of India, two, deceased; of the West Indies, one, discharged in 1885; of Java, one; of Tanna (New Hebrides), one; of New Caledonia, one, deceased; and all of these were coloured people.

MILITARY INTELLIGENCE.

New South Wales.

Captain N. R. Howse, V.C.—The following is an extract from the *London Gazette* of June 4th, 1901: "**Victoria Cross.**—The King has been graciously pleased to signify his intention to confer the decoration of the Victoria Cross upon the undermentioned officer for his conspicuous bravery in South Africa, as stated against his name: *New South Wales Medical Staff Corps.*—Captain N. R. Howse. During the action at Vredefort on the 24th July, 1900, Captain Howse went out under a heavy cross fire and picked up a wounded man, and carried him to a place of shelter."

Victoria.

Military Forces.—Promotions, *Head-Quarters Staff*: Lieutenant-Colonel Charles Snodgrass Ryan, M.B., Principal Medical Officer, to be Colonel, *vice* Colonel G. H. Fetherston, M.D., retired, to date on and from 1st July, 1901. *Medical Staff—Militia*: Major Herbert Augustus Embling, M.B., to be Lieutenant-Colonel, *vice* Lieutenant-Colonel C. S. Ryan, appointed to the Head-Quarters Staff, to date on and from 1st July, 1901; Captain James De Burgh Griffith, M.B., to be Major, *vice* Major H. A. Embling, promoted, to date on and from 1st July, 1901. Transfers, *Medical Staff—Militia*: Major Andrew Honman, from the Reserve of Officers, Medical Staff, Militia, to be Major, to complete Establishment, to date on and from 1st August, 1901 (Major Honman will rank on the Fixed Establishment next after Major E. W. Anderson); Captain Charles Henry William Hardy, M.B., from the Reserve of Officers, Medical Staff, Militia, to be Captain, to complete Establishment, to date on and from 1st April, 1901 (Captain Hardy will rank on the Fixed Establishment next after Captain W. C. Daish).

New Zealand.

Appointments.—His Excellency the Governor has been pleased to approve of the under-mentioned appointments:—*New Zealand Volunteer Medical Staff*: William Robertson, to be Surgeon-Captain, commission to date from the 6th March, 1901; Joseph Ernest Rogers to be Surgeon-Captain, commission to date from 3rd May, 1901.

OBITUARY.

Hermann Charles Frederick Esau, M.D., Göttingen, 1851, one of the oldest medical practitioners in South Australia, died at Woodside, S.A., recently.

MEDICAL NOTES.

The International Congress of Medicine will be held in April, 1902, in Madrid. The initial arrangements have already been made, and the work of the congress has been divided into six sections.

The following gentlemen were the lecturers at the Ladies' Sanitary Association in Sydney during this season:—Dr. Armstrong, "Infectious Diseases;" Dr. Grace Bœlke, "Food and Digestion;" Dr. H. B. Ludlow, "Some Common Ailments—their Causes, Diagnosis and Treatment;" Dr. Mary Booth, "About Girls;" Dr. H. C. Taylor-Young, "Aches;" Dr. T. Storie Dixson, "The Human Voice."

Major R. E. Roth, D.S.O., delivered an interesting lecture on "Reminiscences of South Africa" in Sydney on August 12th. The lecture was in aid of the funds of that excellent institution the St. John Ambulance Association, which is doing such good work in our midst.

A man named Hunyan was fined £50 at Queanbeyan, N.S.W., on September 2nd, for breach of the "Medical Practitioners' Act."

His Excellency the Governor of New Zealand has been pleased to direct that Pension Boards, consisting of the following medical officers, be constituted and appointed under clause 4 of "The Military Pensions Act, 1866":—Auckland: William Robert Close Erson, Esq., L.F.P.S.G., L.S.A., etc., Surgeon-Captain New Zealand Volunteer Medical Staff; Edward D. M. Mackellar, Esq., M.D., M.S., etc.; Thomas Owen Williams, Esq., L.R.C.P., L.F.P.S.G., etc. Canterbury: Arthur Castriot De Renzi, Esq., M.R.C.S.E., L.S.A.L, etc., Surgeon-Captain New Zealand Militia; Thomas Wyld Pairman, Esq., L.R.C.P.E., L.R.C.S.E., etc., Surgeon-Captain New Zealand Volunteer Medical Staff; John Henry Deamer, Esq., M.B., M.S., etc. Otago: Harry Archibald De Lautour. Esq., M.R.C.S., etc., V.D., Brigade-Surgeon Lieutenant-Colonel New Zealand Volunteer Medical Staff; Millen Coughtrey, Esq., M.B., M.S., etc., Surgeon-Major New Zealand Volunteer Medical Staff; William Brown, Esq., M.B., M.S., etc; James McPherson, Esq., M.B., M.S., etc.

A dinner was tendered to Surgeon-General W. D. C. Williams, C.B., P.M.O., at the Australia Hotel, Sydney, on August 28th, by the officers of the New South Wales Army Medical Corps. A smoke-concert was also tendered to Surgeon-General Williams by the officers, non-commissioned officers, and men of the Army Medical Corps on September 5th. Both functions were very enjoyable.

We regret to learn that Dr. J. Ashburton Thompson, President of the New South Wales Board of Health, has been seriously ill.

Dr. Clifton Sturt, Bulli, N.S.W., the Government medical officer, has been seriously ill with pneumonia.

Herbert Clapham, proprietor of the Bellevue Sanatorium, Moama, Victoria, was charged, on August 21st, with two offences against the Medical Act. A man named Godfrey had died at the Sanatorium, and the accused being unable to give a certificate of death, an inquest had to be held. Dr. Eakins gave evidence that accused had informed him that he was not a duly qualified practitioner. The first charge was dismissed; the second charge was, that being a person advertising that he treated patients at a certain house, he had not printed on all such advertisements his full Christian name and surname, and had not the same upon the said building. Proof was given that the name was on the walls inside the building, but not on the outside. The bench considered that the letter of the law had been contravened, and the minimum penalty of £20 must be imposed, but at the same time indicated that a memorial addressed to the proper authorities would result very probably in a material reduction of the fine.

The following gentlemen have been gazetted Justices of the Peace in New South Wales:—Dr. C. B. Blackburn, Sydney; Dr. W. F. Burfitt, Glebe; Dr. J. H. Phipps, Mosman; Dr. W. C. Robinson, Cobar; Dr. G. L. Bell, Camden.

The annual report for the year 1900 of Dr. Ashburton Thompson, Chief Medical Officer of the Government, on the working of the Coast Hospital at Little Bay, has been published. The document shows that the number of patients remaining in the institution on December 31, 1899, was 170. During last year 2,343 were admitted, so that the total number under treatment was 2,513. In the course of the twelve months under review 2,147 patients were discharged, while 133 died, the mortality being at the rate of 5·2 per cent. The average daily number of beds occupied for the year was 214·4, being a decrease of 9·84. The cost per bed was—for maintenance and treatment—£68 11s., for the ambulance service £6 19s. 4¼d., and for repairs £2 10s. 3¾d., or a total of £78 0s. 8½d. The gross expenditure for the year was £16,730 19s. 9d.

DR. JAMES ADAM DICK.

WE have pleasure in announcing that Dr. Dick, of Randwick, N.S.W., is now on his way to Sydney in the R.M.S. India, and should arrive about the middle of October. Since leaving South Africa, Dr. Dick has visited the old country, and has obtained his F.R.C.S. Edin., on which we heartily congratulate him.

A MEDICAL MAN VICTIMIZED.

AT the Goulburn Quarter Sessions, July 24th, Frank Thompson, with several aliases, was charged with obtaining £4 18s. from Dr. Handcock, of Goulburn, by means of a valueless cheque, purporting to be signed by George McKinnon. Dr. Handcock followed the man to Sydney, and incurred considerable expense in bringing the criminal to justice in the interests of the profession and the community generally. Thompson had received previous sentences of 3 years, 1891; 1892, 6 months; 1893, 10 years. On the present occasion he was sentenced by his Honor Judge Fitzhardinge to 2 years hard labour.

CHANGE OF ADDRESS, ETC.

BARTLETT, Dr., late of Port Macquarie, has commenced practice at Castle Hill.

CARGILL, Dr. W. D., late of Orange, has removed to Carcoar.

DOWDNEY, Dr. E., has succeeded to Dr. Bartlett's practice at Port Macquarie, N.S.W.

FREYER, Dr. J. K., late of Campbelltown, N.S.W., has returned to Sydney from South Africa, where he was on active service with the detachment of N.S.W. Army Medical Corps.

GUNLING, Dr. J. C., has commenced practice at Inglewood (Taranaki), N.Z.

MAKGILL, Dr. R. H., has returned to New Zealand from South Africa.

MANLY, Dr. R. A. A., formerly of Werribee, has succeeded to Dr. Forster's practice at Lancefield, Victoria.

MCCREDIE, Dr. J. L., has commenced practice at Brewarrina, N.S.W.

MACMASTER, Dr. D., formerly of the Sydney Children's Hospital, has commenced practice at North Sydney.

PERCIVAL, Dr. M. W. C., has succeeded to the practice of the late Dr. F. F. O. Bode, at Pahiatua, N.Z.

RAWSON, Dr., has returned to Wellington, N.Z., from England.

SHAND, Dr. J. C., has removed from Penrith, N.S.W., to North Sydney.

THOMAS, Dr. C. E., has returned from South Africa to Timaru, N.Z.

WHEELER, Dr. T., a recent arrival, has commenced practice at Hokianga, N.Z.

MEDICAL APPOINTMENTS.

The following Medical Appointments are announced:

Brade, Dr. G. F., to be Public Vaccinator at Nannine, Western Australia.

Brown, Dr. R. L., to be Officer of Health for the shire of Fern Tree Gully, Victoria.

Brown, Dr. R. P., to be Officer of Health, Broad Arrow, Western Australia.

Crutchley, Dr. E. J., to be Public Vaccinator at Mount Morgans, Western Australia.

Cumming, William, M.D., to be Health and Medical Officer at Cairns, Queensland.

Dixon, G. P., M.B., to act as Health Officer and Surgeon to the Loch Hospital, Maryborough, Queensland.

Forster, Dr. A. E. B., to be Medical Superintendent at Kyneton Hospital, Victoria.

Halliday, Dr. J. C., to be Clinical Assistant to the Out-Patient Department at Prince Alfred Hospital, Sydney.

Hare, F. W. E., M.D., to be Medical Superintendent of the Diamantina Hospital for Chronic Diseases (Q.).

Harding, H.W.L., M.R.C.S., etc., to be a Public Vaccinator in New Zealand.

Henry, A.G., M.D., to be Medical Superintendent at Coast Hospital, Little Bay, New South Wales.

Lovegrove, Dr. J. F., to be Government Medical Officer and Vaccinator at Rylstone, New South Wales.

Makgill, Dr. R. H., to be District Health Officer, New Zealand.

Ogston, F., M.D., to be District Health Officer in New Zealand.

Pollen, H., M.D., to be a Medical Practitioner under the "Workers' Compensation for Accidents' Act," No. 2.

Rutledge, Dr. C. J., to be Medical Officer of Health in South Australia.

Terrey, Hedley, M.B., to be Government Medical Officer and Vaccinator at Kiama, New South Wales

Verco, C. A., M.B., to be Resident Medical Officer at Adelaide Hospital.

Violette, W.B., M.B., to be Medical Officer of Public Institutions at Parramatta, New South Wales.

Waters, Dr. C. H., to be Public Vaccinator at Mt. Malcolm, Western Australia.

REVIEWS.

TUMOURS, INNOCENT AND MALIGNANT. THEIR CLINICAL FEATURES AND APPROPRIATE TREATMENT. By J. Bland-Sutton, Surgeon to the Chelsea Hospital for Women, Assistant-Surgeon to the Middlesex Hospital, London. New edition, with over 300 engravings. Cassell and Co., Limited, London, Paris, New York and Melbourne, 1901. Price 21s.

In the preface the author states that "This edition contains many emendations and additions, which do not alter the character of the book, but, I venture to hope, will make it more worthy of the generous reception accorded to its predecessor. I have not discussed the causes of cancer or sarcoma; they are unknown. We must not forget that the causes of the so-called benign tumours are more mysterious than of those that are malign. Until the causes of tumours are detected (and perhaps even then) the only effectual mode of treatment consists in removing them, wherever this is practicable, at the earliest possible moment." In this work tumours are classified on similar lines to those used in biology, and are arranged in four groups—I. Connective-tissue tumours; II. Epithelial tumours; III. Dermoids; IV. Cysts. These are again divided into malignant tumours and innocent tumours. The malignant exhibit the following characters:—(1) They infiltrate the surrounding tissues; (2) they infect adjacent lymph-glands; (3) they tend to recur after removal; (4) they become disseminated in distant organs; and (5) inevitably destroy life. The innocent are, as a rule—(1) encapsuled, and, when diffuse, do not infiltrate; (2) they do not infect lymph-glands; (3) nor recur after complete removal; (4) they do not disseminate; and (5) they only imperil life when they grow in the vicinity of vital organs. Bland-Sutton's works are so well known and appreciated that there is little need to do more than mention the appearance of this new edition to ensure its being eagerly sought after. The author's style is so clear and so concise that one has not to wade through pages of verbosity in order to find out his views on any given tumour or organ. The illustrations, the type and the general get up of the book reflect credit upon both author and publishers.

PRINCIPLES OF SURGERY. By N. Senn, M.D., Ph.D., LL.D., Professor of Surgery in Rush Medical College in Affiliation with the University of Chicago; Professorial Lecturer on Military Surgery in the University of Chicago; Attending Surgeon to the Presbyterian Hospital; Surgeon-in-Chief to St. Joseph's Hospital; Surgeon-General of Illinois; Late Lieutenant-Colonel of United States Volunteers and Chief of the Operating-staff with the Army in the field during the Spanish-American War. Third Edition. Thoroughly revised with 230 Wood-engravings, Half-tones, and Coloured Illustrations. Royal Octavo. Pages, xiv—700. Extra Cloth, $4.50, Net; Sheep or Half-Russia, $5.50, Net. Philadelphia, F. A. Davis Company, publishers, 1914-16 Cherry-street.

The first edition of this work was published in 1890, when the aim of the author was to write a book for the student and general practitioner, which should supply those parts relating to the fundamental principles of the art and science of surgery, which he claimed to be absent from most treatises on surgery. The text of this edition has been thoroughly revised and many additions made, among them two new chapters, one on "Degeneration" and the other on "Blastomycetic Dermatitis," subjects which should be included in a text-book on the "Principles of Surgery." Many new illustrations have been added, most of them original. Several of the bacteria are figured. The book is written in a very readable manner, is well printed, and is well worthy of a place in every medical library.

THE EXTRA PHARMACOPŒIA. Tenth edition, 1901; p.p. XXXII. and 688. Size, Royal 32mo. Price, 10s. 6d. nett. Publishers: H. K. Lewis, Gower Street, London.

Since the publication of the ninth edition of the "Extra Pharmacopœia," in 1898, new editions have appeared or supplements have been added to the "Continental Pharmacopœias," and those of most of the London Hospitals have been revised. An Indian and Colonial Addendum has also been added to the British Pharmacopœia.

In the present edition careful study has been made of these alterations and numerous abstracts from them inserted. An account of all the newer synthetic drugs has been added with notes on their use from current literature. The section on serums, antitoxins, and organo-therapy has been revised with the help of Dr. Sims Woodhead and the section on analytical memoranda has been brought up to date.

Considerable additions have been made to every part of the book which enhance the value of a work that has already rendered itself indispensable to the medical profession. In these days of rapid therapeutic evolution possession of the present edition becomes, not advisable, but necessary to every modern practitioner.

SPEECH DEFECTS CORRECTED, LIP READING FOR THE DEAF, GERMAN (ORAL) SYSTEM FOR DEAF MUTES, Children and Adults. Appointments by letter. For terms, &c., MISS ADDERLEY, Room 50, Vickery's Chambers, 76 Pitt Street, Sydney.

Practical Points in Gynæcology. By H. MacNaughton-Jones, M.D., M.Ch., Q.U.I. Bailliere, Tindall & Cox, London. L. Bruck, Sydney. Price 4s. 6d. With twelve plates. Demy 8vo.

The book is a reprint of a series of articles which appeared in the *Edinburgh Medical Journal*, and were written for it by the author at the request of the editor. The book is divided into six chapters. Chapter I., Some points in gynæcological Asepsis; II., Some pitfalls in gynæcological diagnosis; III., The therapeutics of disorders of menstruation; IV., Conservatism and its influence on operative technique; V., Affections of the female genitalia as causal factors in the etiology of neuroses and insanity, and their special bearing on the operative treatment of the insane; VI., The indications for the operations of hysterectomy and myo-hysterectomy in myoma; appendix.

Aphorisms, Definitions, Reflections and Paradoxes—Medical, Surgical and Dietetic. By A. Rabagliati, M.D., F.R.C.S. Edin. Bailliere, Tindall & Cox, London; L. Bruck, Sydney. Price 7s. 6d.

This book is really an open letter, by a medical man of many years' standing, to the medical profession. As such it embodies and assumes the experience, which is common to the profession, and makes use of its language, not hesitating, however, to create or suggest new language when occasion seems to demand it. A new name, *e.g.*, is suggested for rheumatism, *initis*, and also one for the effusions which take place into the serous cavities, *ichoro-eilemmatitis*. As regards food, also, many new words, as mono-siteism, poly-siteism, etc., are introduced and freely used.

The chief difference between the writer and his colleagues lies in the question of food supply. He states that the chief cause of illness, by far, the cause in comparison with which all other causes fade into insignificance, is improper feeding, not improper or unsuitable aëration, though this appears to him to be the second most important cause. In attributing epidemic diseases and fevers to improper feeding, he differs widely from the current view which attributes them to bad air and insufficient ventilation, although he gives weight to that cause also. But he leads an argument, at paragraphs, 258 to 260, to prove his view; and unless this argument can be answered, it must be held to have been proved. The effects of alcohol are not discussed; but it is shown that the fevers are not due to it, or not much, because their incidence is mainly among children and young people.

Colds, inflammation, rheumatism, gout, pneumonia, apoplexy, etc., are also, in the writer's view, due to wrong feeding and especially to over-feeding. The quantity of ordinary mixed food recommended to the average townsman is twelve to twenty-four ounces daily—a quantity much less than is usually taken (88). The views of physiologists on this question are discussed and compared with cases taken from real life in medical practice. How much food and how often is more important, he holds, than what kind of food is used, and it is recommended to eat twice daily rather than thrice. This practice is recommended even for school children.

The theory of the book might be called a theory of the predisposing causes of disease, rather than of the exciting causes; but the latter seem to have their proper place and weight assigned them. A feature of the book is a resuscitation of the theory regarding approximate causes, which are shown to be two only, swelling and shrinking. It is stated "we can frequently relieve constipation by the same means which check diarrhœa, viz., by restricting diet. We can frequently fatten thin, wasted, attenuated persons by the same means by which we can reduce obese persons, viz., by restricting diet."

The sections on surgery are also interesting. The writer is of opinion that the value of the germ-theory has been greatly exaggerated, and that surgery is far too frequently resorted to for the cure of disease. He attaches little importance to the influence of heredity in the induction of disease. Organization, he affirms, is inherited, disease is acquired—not always, but nearly always. The book ends with cases in whose treatment the views of the writer have been put into practical operation, with, it appears, good results.

The section devoted to the laws of the organism as regards disease, 489-493, will probably stir up as much controversy as any in the book.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

The following persons have been duly registered as legally qualified medical practitioners in their respective states:—

NEW SOUTH WALES.

Fetherstonhaugh, Charles, M.B. 1875, Mast. Surg. 1876, Univ Dubl. Lic. Lic. Midwif. 1876, R. Coll. Surg. Irel.
Kerr, David, M.B., Mast. Surg, 1895, Univ. Glasg.
Seabrook, Leonard Llewellyn, M.B., B.S. Univ. Adelaide, 1891.
Wilson, Henry Boase, Mem. R. Coll. Surg. Eng., 1857.

NEW ZEALAND.

Morkane, M. C. F., M.B., Bac. Surg., Univ. N.Z., 1901.

QUEENSLAND.

McLeod, Rev. John, Brisbane, M.D. 1877, Ch.M. 1899, Bishop's College, Montreal.

Regazetted.

Stockwell, James, Medical Superintendent, Dunwich, Lic. R. Coll. Phys. and Surg. 1866.
(Originally registered in Queensland 5th November, 1896.)

SOUTH AUSTRALIA.

Additional Qualifications:

Gault, Arthur Henry, M.D., Lond., 1901.

TASMANIA.

Webster, Edgar Ernest, M.B., Ch.B., Melb., 1899.
Johnston, Arthur Alma, L.K.Q.C.P.I. 1875; L.M.K.Q.C.P.I. 1880; L.R.C.S. Edin. 1876.

WESTERN AUSTRALIA.

Connelly, Arthur Waldo, M.B. Melb. 1894; B.S. Melb. 1895.
Bissett, John Arthur, L.R.C.P., L.R.C.S. Edin. 1893; L.F.P.S. Glasg. 1898.
Newton, Robert Earle, F.R.C.S. Eng., 1901.
Macmillan, John George, M.B., Ch.M. Edin. 1895.

BIRTHS, MARRIAGE AND DEATH.

BIRTHS.

ALSOP.—On the 20th July, at Bairnsdale, Victoria, the wife of Charles J. Alsop, M.B., of a daughter.

HETHERINGTON.—On the 5th September, at Burwood, Sydney, the wife of Henry B. Hetherington, M.D., of a son.

MARRIAGE.

WASSELL—HOLE.—On the 18th April, at All Soul's Quetta Memorial Cathedral, Thursday Island, by the Right Rev. the Lord Bishop of Carpentaria, Joseph Leathom Wassell, M.B., Ch.M. Sydney, second son of James Wassell, Esq., of Teneriffe, Brisbane, to Ethel Elizabeth, eldest daughter of the late Charles Hole, Windsor, and of Jane E. Hole, Iona, Manly.

DEATH.

WRIGHT.—On the 14th September, at his residence, 15 York-street, Wynyard Square, Sydney, Horatio George Anthony Wright, Surgeon, M.R.C.S. Eng., L.S.A. Lond., of angina pectoris, aged 74 years.

AUSTRALASIAN MEDICAL GAZETTE.

ORIGINAL ARTICLES.

A CASE OF PRIMARY NEOPLASM OF OPTIC NERVE SHEATH REMOVED BY KRÖNLEIN'S OPERATION, WITH PRESERVATION OF THE EYE AND GOOD VISION.

By F. Antill Pockley, M.B., C.M. Edin. M.R.C.S. Eng., Hon. Ophthalmic Surgeon to the Prince Alfred Hospital, Lecturer on Ophthalmic Medicine and Surgery in the University of Sydney.

◆

For this extremely rare and interesting case I am greatly indebted to Dr. Mason of Tumut, and Dr. Lees of Adelong.

The patient, an otherwise apparently healthy and robust country lad, aged 13, came to me on the 9th of this month. The history was that for the last six or eight months without any suspected cause, the left eye had been gradually becoming more prominent and latterly the sight had became affected. There had never been any pain or inflammation. On examination the left eye was found to be pushed straight forward to the extent of three-eighths of an inch; movements free in all directions, no diplopia, upper lid drooped somewhat, due to trachoma, pupil normal, tension normal, $V = \frac{5}{12}$. On deep pressure with the finger tip in the lower outer segment of the orbit there was an indistinct feeling of resistance. Ophthalmoscope showed moderate optic neuritis.

Diagnosis: Retro-ocular tumour situated within the muscle cone, probably attached to the optic nerve, but not directly implicating it.

He was admitted into the Prince Alfred Hospital the same day, and operated on the next. Dr. Hughes saw him with me at the hospital, and agreed with me as to the diagnosis, as well as to the propriety of the proposed operation, and I wish to express my thanks to him, and to Dr. Blue for their valuable assistance.

Operation.—A curved incision was made down to the periosteum, beginning at the anterior boundary of the temporal fossa, about half an inch above the orbital margin, and terminating over the zygoma, midway between the external canthus and the tragus, the convexity of the curve being downwards and forwards, and the midpoint opposite the canthus. The advantage of this form of incision is that the parts come together afterwards without any tension. Next the periosteum was incised along the outer margin of the orbit, and detached from the whole of the outer orbital wall. The bone was next cut through in three directions. This was done partly with a chisel and mallet, and partly by means of a small circular saw attached to a dental engine, which I found very convenient and expeditious. The first section divided horizontally the external angular process of the frontal bone close to its base; the second ran obliquely downwards and backwards from the bottom of the first bone incision, and terminated in the spheno-maxillary fissure; the third divided horizontally the frontal process of the malar bone, and was continued backward into the spheno-maxillary fissure. The three incisions should be made in this order. If the third be made before the second there is no support for the chisel in making the last section. A triangular piece of bone was thus separated, measuring, vertically about an inch and a quarter, and one inch antero-posteriorly. This wedge of bone, with its over-lying soft tissues, was forced outwards and backwards, then the previously detached periosteum was divided horizontally backward with blunt pointed scissors, when the contents of the orbit were easily reached. A firm, smooth, rounded tumour was felt, attached to the optic nerve, along about three-quarters of an inch of its length. Without much difficulty this was stripped off the nerve. Here is the growth. It was encapsuled, and measured about three-quarters of an inch in diameter. It was not necessary to divide the external rectus or any other structure to reach it. The periosteum was stitched with catgut (scarcely necessary), the detached bone, with its soft coverings, pressed back into position, and the skin wound sutured with horsehair. Union took place by first intention There was no rise of temperature. The stitches were removed on the fourth day. For a few days there was slight puffiness of the lower lid. The eye went back immediately, and now, seventeen days after the operation, you will see it is in its normal position. Movements are apparently unrestricted, but careful testing with coloured glass before one eye, and candle flame, shows diplopia, in turning the eyes strongly to the left. This interference with the action of the external rectus, Knapp says, always occurs after the operation. The slight drooping of the upper lid that existed before the operation remains. The skin incision is indicated by a very faint line. The optic neuritis has quite subsided. V = $\frac{5}{12}$, as before the operation.

Sections of the tumour were made by Dr. Cleland, and are shewn under the microscope. Dr. Rennie kindly examined the growth for me, and reports that it is "an encapsuled growth showing hæmorrhages. Microscopically it presents the appearance of a glio-sarcoma. It is probably not of a malignant type, and is not likely to recur"

In this opinion Dr. Cleland concurs. The operation presented no difficulties; the tremendous advantage of having ample room to work in, and being able to see what one is doing, compared with attempting to get access from the front, and groping about in a narrow, dark pocket constantly filling with blood, is obvious. In a case like this moreover it would have been impossible to remove the growth from the front without first excising the eye.

Remarks—Tumours of the optic nerve in its sheath are so extremely rare, that any case is worth recording; operations for their removal are still less frequent, and removal without first excising the globe is rarer still. Swanzy says, "It is sometimes possible to remove such a tumour and yet preserve the eyeball by dislocating the latter during the operation, As a rule, it is necessary to enucleate the eyeball in order to reach the tumour." And—not to multiply quotations—all the text books say the same thing. Noyes mentions four cases in which the globe was preserved, though in two of the four it afterwards suppurated. Knapp records a successful case (done by Krönlein's operation) in the "Archives for March, 1900." In Norris and Oliver's "System of Diseases of the Eye," he writes: "It might be possible, as Czerny suggests, to remove a tumour from the optic nerve and yet preserve sight. The tumour may originate in the optic nerve sheath, invade only a part of it and leave the optic nerve free."

In the last volume of the "Transactions of the Ophthalmological Society of the United Kingdom," Treacher Collins and Devereux Marshall wrote that "So rare are cases of tumour of the optic nerve or its sheath, that during the last fifteen years only two have been removed at the Moorfields Hospital, whilst during this time 388,000 patients have been treated, and in the whole of the Society's transactions (extending over a period of twenty years) only five cases have been recorded." In all of these, as in the two recorded in the last volume by Treacher Collins and Devereux Marshall, the eye had to be excised.

As to the operation. It was first done by Krönlein for a dermoid cyst of the orbit and described by him in the *Beitrage Zur Klinischen Chirurgie* in 1887, but it does not appear to have been generally known until Braunschweig brought it forward in 1893. Knapp ("Archives of Ophthalmology, March, 1900") quotes Schlodtmann as giving, up to that time, twenty-six recorded cases, in which Krönlein's method had been employed, five of these being for tumours of the optic nerve.

According to the *Ophthalmic Review* of January of this year, there are only forty-five recorded cases of the operation for all forms of orbital growth, and only ten for tumours of the optic nerve, and two for tumours of its sheath. The writer adds that it is a matter for regret that not one of the forty-five recorded cases is to be found in British journals. The case I have shown appears, therefore, to be the third of removal of growth from optic nerve sheath by this method with preservation of the eye, or the thirteenth if tumours of the optic nerve itself be included, and I have the fortunate privilege of showing you apparently the first case recorded in Britain or Australia.

If Schlodtmann's statistics of March, 1900, and the *Ophthalmic Review's* of January 1901, be equally correct, it would appear that the operation is becoming more widely known and practised—except in the United Kingdom—and to bring it under your notice, and as a record of an extremely rare case, I have shown you the patient and specimen, and have made these few remarks.

There remains the important question of the likelihood of a recurrence. Time alone will show whether we are doing the right thing in not proceeding further; but on the present condition of the patient, and the state of our knowledge as to the behaviour of these growths, I do not think any of you would do anything but await events.

The form of tumour most frequently met with in this situation is said to be myxo-sarcoma. Every writer who refers to them says they are benign and do not recur even if a small portion be left. Deyl and Sattler, in Norris and Oliver's "System," corroborate this, but assert that neoplasms starting in the sheath are much more dangerous than those originating in the nerve itself, that they grow more rapidly, and after incomplete removal are followed by rapid and more malignant reappearance. They also write of growths of the optic nerve as "extraordinarily rare."

Certainly, in this boy's case, the symptoms appear to have come on rather rapidly, but we have to remember the proverbial failure of the average parent to observe gradual changes in appearance, and allow for the probability that the eye had begun to protrude for some time before it was noticed. Moreover, the number of recorded cases is so very small and in nearly all of them such a short time has elapsed since their removal, that our knowledge of their subsequent history is very meagre. Bearing in mind, however, the statements that they are non-malignant, and the opinion of Drs. Rennie and Cleland given above, and also the fact that this growth was enclosed in a capsule (which I might add stripped off the growth readily), and was entirely removed. I think we may fairly expect that it will not reappear. I shall ask Dr. Mason and Dr. Lees to kindly keep an eye on the case with a view of enabling me to give, at some future date, a further note as to its course.

27th September, 1901.

P.S.—Since writing these notes Drs. Rennie and Cleland tell me they consider now that the growth is a round-celled sarcoma, but of an aberrant form, and encapsuled completely, and they think it is not likely to recur. I am informed that Dr. Jamieson has also examined the sections, and is of a similar opinion.

PLEURO-PNEUMONIA, COMPLICATED WITH SUPPURATIVE SYNOVITIS OF THE RIGHT KNEE.

BY J. C. VERCO, M.D. LOND., F.R.C.S. ENG., ETC, ADELAIDE, S. A.

READ BEFORE THE SOUTH AUSTRALIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

◆

A YOUNG lady went to bed quite well on October 19th, 1900. During the night she went through the house in her night-dress, in consequence of an alarm of burglars. On waking next morning she had a dull aching in the left side of her chest, with a sharp stabbing pain on drawing her breath. She was up during the day, but had headache, stiff neck, shivering, and general pains. I saw her that evening, when she had temperature 103·6°. The next day she had friction rub and bronchial breathing over the left lower lobe behind. During the night of the 23rd, she was kept awake by a severe pain in the right knee, which came on quite suddenly in the night. When seen on the next morning it was very swollen and painful, but not red. On the evening of the 26th, it was punctured, and yellow pus was withdrawn. On the morning of the 28th, Dr. Lendon gave ether, and the knee-joint was incised on each side of the patella, and drainage tubes were put in. She still had pyrexia and consolidated left lung. On November 2nd, an abscess was opened over the right internal malleolus, and on November 7th, a large abscess was incised and drained on the inner side of the right calf. In a month these had scabbed over. After a short time the incisions into the knee joint healed, and she had a knee in very slight flexion, with some passive movement, but this gradually disappeared, and left her with a stiff joint.

The temperature did not range very high after the first few days The day after the knee became affected it was 101·6°, then ranged between that and 101°, until the day after the knee was opened, when it fluctuated about 100° until November 11th, a few days after the abscess in the calf was drained. Thence onward it was normal. There was no proper crisis, as in an uncomplicated pneumonia.

Contrary to what might have been expected from a lobar pneumonia and a suppurating knee joint, the temperatures were lower than in most cases of pneumonia alone; the general condition did not seem aggravated by this formidable complication.

The pulmonary consolidation, though it affected nearly the whole of the left lower lobe, did not make the administration of the anæsthetic specially difficult, nor apparently more dangerous, nor did the condition of the lung seem to be prejudicially affected by the inhalation of the ether. An aspirator needle was introduced into the dull area in the chest, so as to certify the absence of an empyema.

The pus taken from the knee joint was examined at the Elder Bacteriological Laboratory, and reported to yield a pure culture of the diplococcus pneumoniæ.

The occurrence of suppurative synovitis in the course of acute lobar pneumonia must be very rare. This is my first experience of it in nearly 30 years of medical work. When the synovitis appeared, and was so acute, suppuration suggested itself, and when pus was withdrawn, the analogy with empyema was so plain (in which the pneumococcus has been found), that it was submitted to bacteriological examination to determine the presence of the pneumococcus, with a positive result. It has been previously detected in similar cases. Dr. Morgan kindly supplied me with the following two references. "Sternberg's micrococcus"—the pneumococcus of Fränkel and Weichselbaum, not of Friedländer—"was first found in the blood of rabbits injected with saliva. The same organism in 1883 was found by Talamon in pneumonic sputum. It was identified by Sternberg. It has been found in purulent meningitis by Netter, and by Monti in cerebro-spinal meningitis, by Wachselbaum in ulcerative endocarditis, and by others in acute abscesses of the middle ear, and in purulent inflammation of the joints following pneumonia." "Bacteriology, Crookshank, 1896, p. 235."

"The pnoumococcus is pathogenic in other ways than by the production of croupous pneumonia. Thus Foa and others have found it in cerebro-spinal meningitis, Fränkel in pleuritis, Weichselbaum in peritonitis, Banti in pericarditis, numerous observers have found it in acute abscesses, Gabbi has isolated it from a case of suppurative tonsillitis, and Zaufal and others have been able to demonstrate its presence in the pus of otitis media. It has also been reported as occurring in arthritis following pneumonia." "Pathogenic Bacteria, McFarland, p. 302."

In both these quotations the arthritis is spoken of as "following pneumonia." In my case this phrase is not quite appropriate; it complicated it. The first signs of lung trouble were on the 20th, the sudden, acute pain in the joint was on the 23rd. The arthritis was no sequela, but a complication.

From the predominance of the signs and symptoms of the knee affection over those in the chest, it is easy to believe some cases seen not quite so early in the course of the complaint might be diagnosed as primary inflammation of the joint, and the relation with lobar pneumonia might be overlooked. It would be well always to examine the lungs carefully in every acute arthritis, and to submit the pus to bacteriological inspection.

The local signs and symptoms in the joint were similar to those of other forms of suppurative synovitis—the same excessive pain and tenderness, and the same nocturnal startings.

Remembering how rapidly and readily an empyema is recovered from after early drainage, I was hopeful that expeditious incision and free drainage of the knee might result in a freely movable articulation, little, if any, the worse for its severe affection, but in this I was disappointed, for the leg was left immovably stiff.

THE SYDNEY AND SUBURBAN PROVIDENT MEDICAL ASSOCIATION.

The Annual Meeting of the above will be held at 121 Bathurst Street, on Tuesday, 29th October, at 8.30 p.m. To be followed by a Meeting of the Profession at 9 p.m.

Business:—To receive the Report of the Working of the Association during the past year.

A. ACLAND O'HARA, Hon. Secretary.

SPONTANEOUS RUPTURE OF THE UTERUS DURING LABOUR, SUCCESSFULLY TREATED BY ABDOMINAL SECTION. (ILLUSTRATED).

BY RALPH WORRALL, M.D., M.CH., SURGEON TO THE DEPARTMENT FOR WOMEN AT THE SYDNEY HOSPITAL, SYDNEY.

MRS. F. was admitted into the Sydney Hospital on 21st March, 1901, at 4 30 a m. on the statement of her doctor that the uterus had ruptured about 11 p.m., and that about 1 a.m. he had extracted a not unusually large child and placenta both of which had escaped into the peritoneal cavity through a rent along the right margin of the uterus

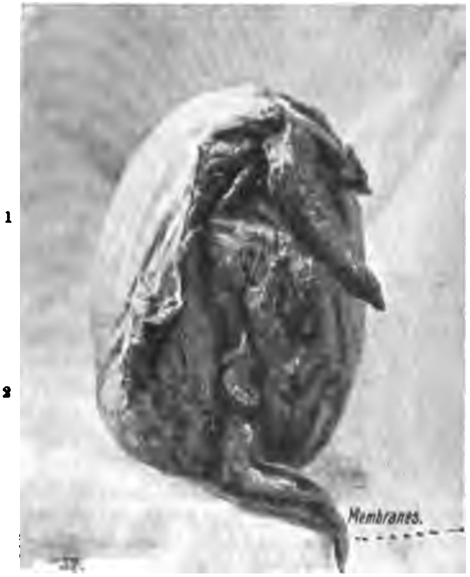
The history subsequently obtained was that the patient, *æt.* 39, was a four para, always healthy, previous labours normal, and that labour on this occasion at full term began at about 10 p.m. on 20th March. There were only about three pains in all when the membranes ruptured, and at the same time she felt "an agonising pain as if something had given way in her inside." She gave "three unmerciful screams," and immediately became faint and collapsed The midwife who was in attendance and who had neither examined the patient nor given her medicine, sent for the doctor.

I saw the patient about 5 a.m, and found her in great pain, blanched, faint, with a pulse of 144, very compressible. In fact, the condition seemed so desperate that one hesitated to undertake any operative interference.

Ether was given, and on examination per vaginam a great rent was discovered extending from the external os across the right vaginal fornix and then up along the right border of the uterus, nearly half way to fundus. Through this the hand was passed, when it was found that the right broad ligament had been completely torn across, so that the connections of the uterus with the right pelvic wall were no longer present. Large blood clots were felt amongst the intestinal coils.

The skin having been rapidly cleansed, abdominal section was done, the uterus amputated at the level of the inner os, the tear through the right border of the cervix below the line of amputation sutured with catgut, the cervical stump sutured and covered with peritoneum, and all vessels having been secured, except the right ovarian, which had retracted into the cellular tissue and could not be found in the few minutes available, the peritoneum of the broad ligament was carefully sutured over a gauze drain lying in the cellular tissue and extending from the cæcum to and through the opening in the right vaginal vault.

All raw surfaces and injured areas having thus been excluded from the peritoneal cavity, the latter was irrigated with saline solution to remove the large amount of fluid and clotted blood present, and then closed without drainage.



1. Tear. 2. Cervix.

The patient was put to bed in a condition not much worse than that which existed prior to operation, and gradually reacted to subcutaneous saline injection and hypodermics of strychnine.

There were no peritoneal symptoms whatever after the operation; vomiting occurred but once. On the second day, however, pneumonia of the right base developed (pneumococci in sputum) brought about no doubt by the long journey to the hospital on a cold and wet night, the patient being at the time in a state of extreme collapse. From this cause her life was in great jeopardy for a fortnight, and she undoubtedly owes her recovery to the unremitting care of the resident medical and nursing staff. She was discharged on 6th May very well.

I saw her again on 23rd August, when she expressed herself as feeling "grand." The scar was firm, and the pelvis free from tenderness or exudate. The cervix was quite movable.

I exhibit the uterus. Macroscopically and microscopically nothing markedly abnormal can be discovered.

A scrutiny of the history of this case indicates that it belongs to that rare class where rupture occurs in the absence of all those conditions which usually lead to its production, viz., obstruction from contracted pelvis, mal-presentation, tumours blocking pelvis, disproportionate size or disease of the fœtus, premature rupture of membranes, and rigidity or disease of the cervix, and fatty degeneration of the uterus.

A similar case which proved fatal was reported by Dr. Jardine in the *British Medical Journal* for 16th February, 1901, and two others were referred to by him. Concerning the pathology of such cases we know nothing; there is no warning, and therefore no prophylactic measures can be taken. We are in a very different position with regard to the usual type—those in which rupture occurs from any of the abovementioned cases, and in which it is preceded by "tonic contraction of the uterus." Here we have a striking train of symptoms, the significance of which should never be disregarded, and which should induce the practitioner to empty the uterus without a moment's delay.

In examining midwifery nurses, whatever other question I may ask, I never omit requiring a description of tonic contraction of the uterus and its appropriate treatment.

The diagnosis of rupture of the uterus is not difficult as a rule. The sudden cessation of violent pains, retraction of the presenting part, hæmorrhage from the vagina, and collapse out of all proportion to such hæmorrhage constitute a picture sufficiently clear; the only difficulty arises in distinguishing between complete and incomplete ruptures. We must be guided by the relatively smaller amount of shock in the latter, and the only partial recession of the presenting part, with a closer juxtaposition of the fœtus to the rounded fundus as felt by external palpation.

In the treatment of such cases it is necessary first to decide how we shall deliver the child, and in incomplete ruptures I think it will be generally agreed that delivery through the vagina by forceps or embryotomy is the proper course, but great care must be taken to avoid increasing the tear and adding to the loss of blood. When the child has escaped into the peritoneal cavity, delivery per vaginam must almost certainly aggravate the damage and the shock. It would be best, therefore, to do abdominal section, deliver the child, wash out the peritoneal cavity, and repair the damage by suture or remove the uterus.

In a discussion on this subject at the Obstetrical Society of London, reported in *The British Medical Journal* of July 13th, 1901, not a single speaker advocated abdominal section. All were in favour of packing with strips of iodoform gauze passed through the tear; no doubt, in incomplete rupture this treatment as a rule gives the patient as good a chance as any other, but in the more serious cases, such as that which I now report, nothing but abdominal section holds out any hope of saving the patient.

By it the child is extracted without injuring intestines or peritoneum, blood and other foreign matter is removed from the peritoneal cavity, hæmorrhage is surely arrested, the damaged and probably infected uterus is removed, and the patient thus spared all the dangers of the puerperium. Herman says that "when the rupture involves the cervix and vagina, amputation of the uterus is a useless addition to the patient's danger, as the tears in these parts are left;" he seems to forget that after the removal of the uterus at the level of the inner os, any tear below this point can be sutured without difficulty, and then covered over with peritoneum as I did in this instance.

Much of course depends upon the conditions present and the surroundings of each individual case. If the operator understands modern methods in pelvic surgery, and if he have skilled assistants and all the resources of a properly equipped hospital such as I was fortunate to have at my disposal, then I say abdominal section offers the best prospect of saving the patient. In the absence of these factors the obstetrician must content himself with the insertion of a strip of iodoform gauze through the edges of the rent, to be left in for four or five days, every possible means being taken to prevent sepsis and maintain the strength and vitality of the patient.

A CASE OF AMBLYOPIA DUE TO NITRO-GLYCERINE (ILLUSTRATED).

BY G. H. HOGG, M D., LAUNCESTON, TASMANIA.

READ BEFORE THE LAUNCESTON DISTRICT BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

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THE following case of toxic amblyopia seems worthy of record, due as it was, apparently, to nitro-glycerine, a chemical to which, so far as I am aware, attention has not been previously drawn as a cause.

X, male, aged 25 years, a miner, consulted me on December 25th, complaining of failure of sight. He first noticed this about eight weeks ago, and within the last four weeks has become unable to read large print. For some months X has been working in a mine which is very badly ventilated, and has in consequence been much exposed to the fumes of gelignite—a blasting powder of which nitro-glycerine is the chief constituent. He, as well as his fellow miners, have suffered from very severe headaches during this time, and some of them have also complained of dimness of vision, although not to the same degree as he has done. He has noticed for some time that he sees better at dusk or in a dim light. X is almost a total abstainer, smokes two to three ounces of tobacco weekly, and has never had any venereal disease.

On examination the pupils were somewhat large and sluggish,

$$\text{R.V.} = \frac{0\cdot5}{60} \qquad \text{L.V.} = \frac{0\cdot5}{60}$$

Vision slightly better with low illumination than with high. Complete colour-blindness. Field of vision for white, normal, no scotoma of any kind. Optic discs were congested chiefly at temporal sides, the veins very much dilated, arteries dilated to a less extent, both veins and arteries being of a peculiarly dark colour. Pulse 100, regular, of low tension; urine normal. Complains of some breathlessness on exertion. Smoking was stopped and strychnine was given hypodermically for some time.

January 21st.—$\text{R.V} = \frac{2}{60} \qquad \text{L V.} = \frac{2}{60}$

Red and blue now recognised, the field for these colours showing concentric contraction, but no scotoma; green and yellow not recognised. Headaches and breathlessness much better.

February 3rd.—$\text{R.V.} = \frac{4}{60} \qquad \text{L V.} = \frac{4}{60}$

February 21st.—$\text{R.V.} = \frac{4}{60} \qquad \text{L. V.} = \frac{5}{60}$

April 18th.—$\text{R.V.} = \frac{6}{60} \qquad \text{L V.} = \frac{6}{60}$

Field of vision as represented in the charts for blue and red; green and yellow not recognised. Tincture of digitalis given by the mouth in addition to the injections of strychnine The congestion of the optic discs gradually disappeared, and they became pale and atrophic, although the veins continued to stand out dark and dilated on the white background of the atrophic disc.

May 24th.—Patient states that he has had slight swelling of the ankles, which has now disappeared.

$$R.V = \frac{5}{60} \quad L.V. = \frac{5}{60}$$

The patient now ceased attendance, but his relatives, some months later, informed me that his sight had not improved.

I can find no reference in any of the authorities, including De Schweinitz, on the toxic amblyopias, to nitro-glycerine as a cause of blindness. The peculiar feature in this case was the dark, dilated appearance of the veins, and it is interesting to notice in this relation, how in Snell's cases of blindness, due to di-nitro-benzol, dilatation of the veins of the optic disc was a marked feature.

When, as frequently happens, the explosion of nitro-glycerine is imperfect, nitrites are produced, to the toxic action of which in a badly ventilated mine may be attributed the affection of the patient X, and the symptoms described as occurring in several of his fellow-workmen.

The nitrites are well-known, not only to be vasodilators, but also to possess the power of forming a compound with its oxygen more firmly fixed than the oxygen of hæmoglobin, so that large doses arrest internal respiration and are poisonous. It is possible that it was by the presence of some such compound in the blood that the peculiar colour of the vessels of the fundus was caused, and that this appearance as well as the blindness may be due, not so much to the vaso-motor paresis, as to the formation of some such toxic body.

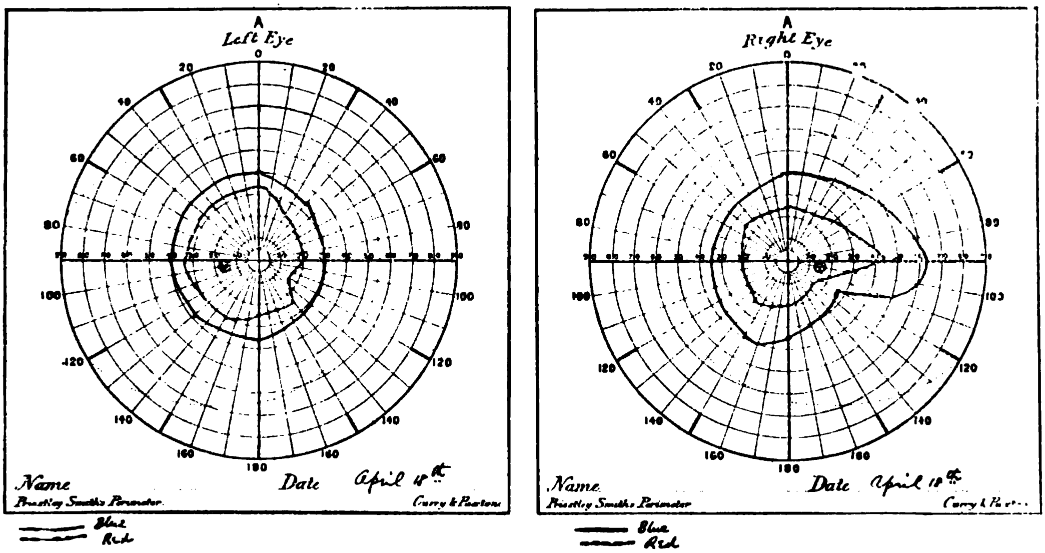

Chart to Illustrate Dr. Hogg's Case of Amblyopia.

NOTE ON NODULAR PERITONITIS.

By Angel Money, M.D., F.R.C.P. Lond., Sydney.

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Many years ago Spencer Wells found nodules on the internal walls of an ascites opened in mistake for ovarian tumour; the patient made a good recovery, and the ascites disappeared. Humphrey Marten's case, in the last number of the *Gazette*, shows a repetition of history. The conclusion drawn was that the disease was tubercular peritonitis. Assertions have been made that cancerous peritonitis has been similarly cured. One may legitimately speculate on the possibility of nodular peritonitis being due to other causes than tubercle and new growths. Likewise, whether uncomplicated ascites may be present without nodules and disappear. Rheumatism and the common colon bacillus are very possible causes, not commonly regarded as originating ascites with or without nodules. No doubt section is necessary for the treatment of some cases of ascites, but I have in mind some in which blue ointment succeeded after laparotomy had been recommended. So I, for one, would plead hard with Burney Yeo for medical treatment.

A CASE OF HENOCH'S PURPURA.

BY W. A. VERCO, M.B. ET B.S., ADELAIDE.

READ AT THE SOUTH AUSTRALIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

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ON August 3rd, 1900, I was called to see R.F., a lad, eleven years of age, who had slight pains in his stomach, and had been sick twice during the night. I gave him a sedative mixture and thought he would soon be all right.

On the 7th he had severe pains in the muscles of the calves of the legs and he could scarcely bare them to be touched; also in the muscles of the arms and forearms. The joints at the elbow, knee, and ankle were aching.

On the 11th, the joints were aching intensely, but the muscles were not so tender. He had been sick again and complained of severe pains in the stomach. The bowels were opened every other day by an enema of soapy water. He had a little petechial rash on the elbows.

On the 15th he still had pains in the limbs, abdomen, and in the muscles of the back. The spots on the elbows were larger and more numerous. There were now some small spots on the knees and ankles. Pulse 70, respiration 24 and regular, temperature 98·4°, The appetite was poor—but no more sickness. He could not sleep on account of the pain in his stomach, so gave him morphia by the mouth at night, which somewhat relieved his pain.

On the 18th, the temperature was normal, tongue fairly clean, pains in the limbs disappearing, but the pain in the abdomen was getting worse, it came more frequently, lasted longer, and was more severe, making the boy cry out, and kept him crying for half-an-hour at a time when the paroxysms came on. Sometimes the severe pains were followed by an expulsion of gas, which smelt very foul—something like a typhoid motion where bleeding had occurred. The mother thought she saw a little blood in his last motion. The boy was afraid to take much nourishment, as he fancied it made the pain worse. He now had fairly large purpuric spots over the extensor surfaces of both elbows, over the patellar surfaces of both knees and dorsal surfaces of ankles and feet. There were also a few spots on the dorsal aspect of the wrists and fingers. The spots did not disappear on pressure. The urine was clear and fair in quantity; no sugar; on boiling there was a copious precipitate which, on adding nitric acid, became more marked. On further boiling it became darker in colour and gradually deepened, until it became a deep purple colour. There were no blood cells in the urine, but hyaline casts in abundance and a few granular casts.

On the 19th the pain had left the stomach, but was present in the right side of the lower chest, so that he could scarcely breathe; poultices relieved it. He took half a grain of morphia in the night, but it did not enable him to sleep.

On the 20th the pain was back again in the stomach and was very severe. He was in agony almost the whole time. He had ¾ of a grain of morphia last night besides bromides, but it did not relieve him much, nor did he sleep. The urine was now smoky coloured in bulk, with half albumin.

On the 21th there were no pains in the limbs; the purpuric rash was disappearing, there having been no fresh spots for several days. There was no trouble in the heart or lungs, but much tenderness in the loins and over the colon in the abdomen. There was still intense pain in the abdominal cavity, apparently of a colicky character, judging by the boy's cry. He was now taking a teaspoonful of the following mixture four times a day:—Quin. sulph. gr. x, ac. hydrobrom. dil. ♏ xxx., Gly. ʒss., aq. ad ℥ij; and was put on bromidia ♏xxx. occasionally when the pain was severe.

On the 22nd he was easier, the pain not so severe nor so frequent. Had slept several hours with the assistance of three doses of bromidia. Pulse very quick and the patient looked bad.

On the 24th much better, still had pains in the stomach, taking nourishment better, water clearer, no pains in the limbs, purpuric spots gone, feet, scrotum, and face a little swollen.

On the 27th the dropsical condition more marked. Had much more pain in the stomach, and had not slept much on account of it.

On the 29th there were pains in the joints again, though not very bad. No fresh spots, still pain in the abdomen, but less severe. Quantity of urine much diminished, half albumin on boiling.

From this time the dropsy got very marked but on September 20th, it had commenced to subside, and in the early part of October it had practically gone. After allowing him up in the latter part of October, there was a slght return of the purpuric spots and an increase of the albumin in the water, but he was soon better again. When the boy was last seen in February, there was still a good deposit of albumin in his water, and he had occasional headaches, but otherwise he was well and had had no return of the spots or pains since October.

The peculiarity of this case is the intense visceral pain which accompanied the purpuric condition. Crocker in his elaborate work on skin diseases, describes a case, and puts it down as a very rare form of peliosis rheumatica. But Henoch was the first to draw attention to this class of cases as a seperate group, the marked feature of which is the association of severe abdominal symptoms as vomiting, colic and intestinal hæmorrhage, with purpura and arthritic swellings.

This case commenced with vomiting, and then followed severe muscular pains, and aching joints, and then severe abdominal pains and abdominal tenderness There was a little hæmorrhage from the bowels, but not much. There was also the supervention of acute nephritis and dropsy, which is rather a frequent complication in this very rare group of cases. There was no febrile condition during the course of the illness. Another marked feature of the disease, as indeed of most purpuras, is the recurrence of the attacks. One thinks the patient is making progress, and will soon be well again, when back come all the old symptoms with perhaps increased severity.

As to the cause of the trouble. In this case, taking into consideration the pain in the muscles both on pressure and on movement, and the aching in the joints, it would appear at first sight to have been caused by rheumatic poison; but, on further consideration, one doubts the correctness of this view, and is led to think that it is not caused by the rheumatic poison, but by a poison (either chemical or bacterial) of a somewhat similar nature. The pain and tenderness in the muscles seemed to be different from an ordinary muscular rheumatic affection; it seemed more like the pain and tenderness one gets in peripheral neuritis. Also, instead of affecting the heart, as a rheumatic poison is very prone to, it affected the kidneys, nor is this case an exception to the group, for it is generally the kidneys that are affected. Here, again, in rheumatic affections, and more especially in acute rheumatism, salicylate of soda soon relieves the intense pain; but in this affection, it has absolutely no effect upon the pain. Again, the boy had no rheumatic history, nor had his parents either.

The intense and agonising pains in the abdomen, were probably caused by some irritation or inflammation of the solar plexus of sympathetic nerves. They were certainly not caused by hæmorrhages into the intestinal tract, as some observers have suggested, for there was scarcely any bleeding in this case. Couty regards the pains as produced by trouble in the nerves themselves, in fact, he regards the disease as of nervous origin, caused by an affection of the vasomotor nerves.

The prognosis in this class of cases is nearly always grave. The more severe the visceral symptoms—especially the hæmorrhages—and the more frequent the recurrences, the graver the prognosis.

As to treatment Henoch advises an icebag to the abdomen, and in repeatedly recurring cases, advises perchloride of iron. Osler has found arsenic appear to control the tendency to recurrence. In the immediate attack, the more marked symptoms will demand the treatment proper to their respective conditions as they appear

Since writing the above paper, I see that Carrière has found in the blood of a case of purpura simplex, a large bacillus, having all the characters of the bacillus described by Achalme and Thiroloix in cases of acute articular rheumatism. Inoculated into animals the results are variable; though in no case did it cause purpura. In one, of a litter of rabbits occupying the same cage as an inoculated animal, there developed an arthritis of a marked character, and in tho fluid from this joint there was found the bacillus described by Achalme and Thiroloix. However, I think that we require further evidence before we can accept this as proving that purpura and acute rheumatism are caused by the same bacillus.

Dr. Hayward related a case of severe purpura rheumatica, in which peripheral neuritis, causing more or less complete paralysis of the arms and legs, was present for two or three months.

A SURVEY OF SOME OF THE OLDER AND MORE RECENT METHODS OF CHECKING SURGICAL HÆMORRHAGE.

By H. M. Lightoller, M.D., Brisbane.

Read before the Queensland Branch of the British Medical Association.

Before entering more fully into my subject for this evening, I must request, should any of my remarks appear dogmatical, that you will pardon me, I have no intention that they should appear to be so, and, Gentlemen, should they convey this impression to your minds, let me assure you that it is due simply to a want of skill upon my part in handling my subject, and not any desire to assert myself in a matter the practical side of which I know so little. Yet still I trust that when I have completed my short *resumé* of the matter in hand, you will consider the time not badly spent, in discussing what appears to me to be a most interesting and important point in surgical practice If you will kindly bear with me for a few minutes, I shall very briefly touch upon some of the most important methods which have been adopted for arresting hæmorrhage since my student days up to the present time. I shall not attempt to speak of all, but only such as have some bearing upon our subject for this evening, and in speaking of hæmorrhage to night, I am alluding solely to that form of bleeding which is due to operative interference. Let me take you back twenty-four years.

First, there was the ordinary silk ligature, waxed by some surgeons, not so by others. After the vessel was tied, one end of the ligature was always left long, so that it might hang out of the wound, to be removed when its hold had been loosened by suppuration and other necrotic processes. This was thought to be a most satisfactory condition at the time, and the idea of its being superseded did not seem to trouble men's minds. Then came torsion for large vessels. This was hailed by many surgeons as one of the great discoveries of the day. I can well remember, when I was junior house surgeon to the Manchester Royal Infirmary, giving chloroform for the first case of torsion of the femoral in amputation of the upper third of the thigh—the vessel, after being pulled well out of its sheath, was then held by one pair of forceps as close to the cut tissues of the stump as possible, the proximal end was then seized in the grip of a pair of torsion forceps, and exactly ten full turns or twenty half turns or twists had to be given in order to make all secure. How carefully those forceps were removed, Gentlemen, and how suspiciously and anxiously the pulsating stump of the femoral was watched by all, and with what misgivings the flaps were at length closed, are matters still fresh in my memory. As time went on, it was found that torsion for large, and even medium sized vessels, was not always reliable; if the coats of the vessel were healthy, and it could be pulled well out from the tissues before being twisted, all went well. But atheromatous vessels, and vessels imperfectly isolated before being twisted, often gave secondary hæmorrhage; soon, therefore, the practice became limited to small vessels. Catgut now came into the surgical arena, and demanded a trial. Here at last appeared to be the surgeons' ideal, but the gut being badly prepared, cases of sepsis were frequent; the gut did not hold well and secondary hæmorrhage was not uncommon. Cases of anthrax and tetanus were also added to the list of mishaps and failings, and so, in the majority of cases, the old silk ligature with the one end hanging out of the wound, was the sheet anchor of the time. In speaking of catgut I include all forms of animal tendons which were currently in use, kangaroo tendon being the one most commonly adopted.

During the period two men at least were working on lines of their own, scoffed at by nine-tenths of their medical brethren as dreamers and muddlers, for those were the days of bold, slashing surgery, when many of the major operations were timed by the second-hand, and in spite of the perfect manipulative skill, and almost faultless technique of the best surgeons of our day, I doubt if there is any modern surgeon who could amputate at the hip joint, with no tourniquet to control his hæmorrhage, in the same bold and precise manner that some of the older school did I remember timing George Southern, of Manchester, for this very operation, the subject being a heavy and obese one, time 39 seconds from the time the point of his knife pricked the skin, to the time the limb was separated from the trunk—but I am rambling from my subject. The two men I mentioned a short time ago were the present Lord Lister and a man whose name I do not suppose anyone here has even heard of. I refer to Edward Lund, surgeon to the Manchester Royal Infirmary and examiner in surgery at the Royal College of Surgeons; he died about two years ago. I remember well the quiet bantering chaff and supercilious smile that greeted him in the operating theatre, when he commenced by washing the skin of his patient with soap and carbolic before operating, and had all his instruments lying in 1-20 Calvert's. Students named him "Sally the Washerwoman," his own colleagues had even a less polite name. The grand old fellow, however, braved it all, and I am thankful to say he lived to see all his hopes fulfilled, but I have often felt sore to think he should have reaped so poor a recognition from the medical world in return for all this abuse, hard work and tenacity of purpose. During these periods the cautery was used in exceptional cases—the galvanic ecraseur was used for amputation of the tongue and penis.

By the work of Lister and others we come up to our present day. What are the methods in use?

1. Forcipressure for small vessels.
2. Torsion in some cases also for small vessels.
3. Silk ligature and suture.
4. Catgut ligature and suture.
5. Animal tendon.

6. Collodion thread.
7. Skene's Hæmostatic Forceps.
8. Angiotripsy.

Now Nos. 1 and 2 answer their purpose perfectly for small vessels which can be easily and quickly isolated. There is, of course, a little damage to tissue from both pressure and torsion, but this is so small as to be of no moment, provided all is aseptic.

Silk Ligature.—This is still the favourite ligature for most purposes, at any rate with English and German surgeons, it is easy to handle, ties well, less apt to slip perhaps than any other material, and can be made perfectly aseptic. Its disadvantages are that it is very slow of absorption, will not stand repeated boilings becoming rotten and friable, is very easily contaminated, though made perfectly aseptic to begin with, and in many cases unless well buried in the tissues, causes suppuration. In spite of its faults there are many of the best surgeons living who will use silk and silk alone; Professor Sanger will not hear of catgut—he says it is always unsafe—silk he uses for every operation, buried or superficial, extra or intra-abdominal, and Professor Sanger's name is held in very high esteem both in England and Germany.

Now we come to *Catgut and Animal Tendon.*—Its advantages are that being an animal substance it is, if clean, easily and readily absorbed, so that no foreign body is left in the wound to cause trouble at the time, or at a later date; it resists absorption, however, long enough to complete its work of allowing a vessel to become permanently closed. Before discussing its disadvantages let us enquire exactly what catgut consists of. Extract from "Aseptic Surgery," by Lockwood, page 85:—"Catgut is made from the entrails of sheep. In the process of manufacture the mucous membrane and most of the muscular fibres are scraped away. Nevertheless it is highly improbable that all the intestinal bacteria are removed. Indeed, there is much evidence to the contrary. Moreover, the intestinal walls themselves are infected."

When we carefully consider the manufacture of this gut, it at once appears clear that to be perfectly sure and safe, great care must be exercised in its use. We have a highly septic animal membrane, twisted into the form of a cord, and twisted so tightly as to have united, so to speak, within its folds numberless forms of bacilli, and they being so carefully and securely hidden are difficult to reach by means of chemical agents. If we could boil our catgut all would be well, but we cannot. Some time ago I saw some researches made upon this point by a most excellent authority, and subsequently I tried, on a very much smaller scale myself to glean some information. I shall, with your permission, give you the gist of my notes upon this matter. I am sure, Gentlemen, that you will agree with me that a few facts are worth much theorising.

Bacteriological and Microscopical Examination of Catgut.—I shall give you concisely the results obtained by the bacteriologist:—

Pieces of catgut and chromic gut as it came from the dealer was in all cases highly septic. Bacilli and cocci in numbers.

Pieces of catgut preserved in carbolic oil in many instances were highly septic, but not in all.

Catgut soaked in oil of juniper one week, in many instances were septic.

Catgut soaked in alcohol one week, in some cases were septic.

Catgut was taken out of the box in which it was sent, pieces were cut off and allowed to soak for a week in 1-1000 perchloride. At the end of this time the pieces were washed most thoroughly in sterilised water. When all trace of the chemical had been removed, the pieces were untwisted under rigid aseptic conditions, little pieces were cut off, and were then inserted into gelatine, agar bouillon, etc. Many of these gave colonies of cocci of various kinds, etc.

I myself repeated these experiments, and with pretty much the same results, but my own may have been faulty, not so the others.

What is the main reason for this difficulty in rendering catgut aseptic? It is composed in most instances of a more or less septic animal membrane, which is twisted to make a cord, so that in the interstices of its many folds the germs, be they pathogenic or non-pathogenic, are well hidden and embedded. But this is not the true difficulty—the real difficulty lies in the two words fatty matter or oily matter. There is always a risk of there being some oily matter in the material itself, and again, before catgut is sent out from the manufactory it is generally rubbed with greasy matter, for this gives it a better finish. It looks better. Now, Gentlemen, if you remember, I said a few moments ago that pieces of catgut soaked in 1-1000 hydr. perchlor. for a week were stil septic for a week. That is correct; but when a long strand of this same sample was first of all well scrubbed with a nail brush and soap and water, well rinsed, and then placed in ether, well shaken in this, and then placed in 1-1000, they were almost without exception all sterile. In fact, none of this sample showed any sign of life, but in a large number of other samples which were tried, there were one or two which shewed they were not perfectly sterile. This may have been due to faulty washing to begin with, or else to some fatty matter still remaining in the folds of the gut, which shut off the action of the chemical agent. I believe one of the very best methods of rendering catgut as safe as it can be is—first wash with nailbrush and soap and water. then, after well rinsing, place in ether. allow to remain twenty-four hours, then place in alcohol and ether, and lastly, keep in Von Bergmann's solution, which is: Absolute alcohol 800 parts, distilled water 200 parts, solution of hydr. perch. or bin. iodide 10 parts, of a one in ten solution. In conclusion, out of 20 samples sold in sealed vessels as aseptic gut, one was badly contaminated.

Collodion thread I cannot say much about; I have never seen it. It is said to be strong, will stand any amount of boiling, even with advantage, but it is not absorbed by the animal economy. This, as Dr. Love mentioned to me the other day, is a disadvantage, for after a ligature has performed the work we demand from it, we should like to think it is done away with and cannot at some future time, if used in abdominal operations, act as a constrictor of intestine or cause unforeseen trouble in any other way.

But I fear, Gentlemen, that I am taking up too much of your time in discussing side issues, and so delaying what I hope you will discuss, namely: Are the means which I have mentioned for checking hæmorrhage from cut vessels always and in every case the best, or do you consider Skene's method more suitable in some cases?

If a vessel can be easily, neatly, and securely gripped by forceps in such a manner that, practically, the vessel alone is included in the ligature, then perhaps this may be considered as good a plan as any yet adopted, provided all is aseptic, but there are some cases in which this cannot be done, and it is in this class of case that I think there is some reasonable element of doubt as to the value of ligature compared with Skene's method.

Take an ovarian pedicle. In some instances a considerable mass of tissue has to be embraced in the ligature—deaths have been caused by slipping of this ligature in spite of supplementary ligature; again, death has resulted from splitting of the pedicle, though ligatures were carefully interlocked. Again, there are cases in which the pedicle has been so tough and resistant that it has been found impossible to bury the ligature; the tissues therefore were unable to fold over and meet across the line of compression, with the result that in some, suppuration and fatal peritonitis, or death from septic poisoning have followed. Again, let us take cases of hysterectomy, either by abdominal or vaginal route. When the uterus is removed by ligature, there must be more or less bunching of tissue in the grasp of the ligature; this is followed in a great many cases by suppuration and its attendant risks.

Having touched upon some of the advantages and disadvantages of ligature I come to Skene's method Skene, who was an intimate friend of Keith, says, that he took his first idea from Keith's application of the cautery to an ovarian pedicle. Keith did this in two ways. one was the direct application of the cautery iron to the stump, the other by the slower process of heating the clamp alone by means of a hot cautery iron, in the one instance the tissues were sealed, by the second they were slowly baked and dehydrated but not burnt or charred.

I am extremely sorry I have not a pair of Skene's forceps to show this evening, I have sent for them some time ago, but have been so far unable to obtain them. They are constructed as follows:—The forceps are made of various sizes and shapes to fulfil their various requirements, but the principle employed is the same in all. They are constructed very like an ordinary pair of pressure forceps, a hollow space is made in the compressing surface of one of the blades, this is then made into a water-tight chamber by having a piece of metal fixed over this little chamber, at the back of this piece of metal a piece of platinum wire is fixed which takes a zig-zag course, this wire is insulated from the extreme edges of the metal plate by a fire-proof insulating material, it is, moreover, separated from the back of the blade by a small space. In this manner the front surface of the metal plate receives the heat from the wire first and in its full intensity, the ends of this wire terminate, one in the end of the forceps blade, the other is conducted to an insulated copper wire, to these two terminals the galvanic current is connected, the current running down the copper insulated wire and one blade of the forceps. The electric current finds very little resistance in these two parts, but when it comes to the zig-zag platinum wire aforementioned, there it finds considerable resistance, and so heat is generated varying in degree according to the amount of current which is allowed, to enter from the terminals. A small ampere meter included in the electric circuit measures the current received by the forceps, and enables the current to be regulated to suit, by means of a theostat or other controlling device. The heat of the jaw is thus controlled with certainty, as the current required by the forceps is known, namely, to bring the heat to from 170° to 190° F.

These forceps can be sterilised by boiling, like any other instrument, and the cables can have sterilised gauze moistened in 1-1000 perchlor. or biniodide wound around the wires, to be rendered quite safe in case they are touched by the surgeon's hand.

Results Following Application of Forceps.—The following is an extract from "McNaughton Jones' System of Gynæcology," 1900 :—

"Looking at the calibre of the vessel which has been compressed, it has a flattened appearance somewhat resembling parchment, and the compressed tunic becomes translucent The dried portion, after it has been well soaked in water, remains firm and unbroken, and any dissection of the component parts of its tunics is impossible, nor can we recognise its various elementary structures by the microscope. Identical results follow the application of the instrument to the vermiform appendix, nor can any trace of the mucous elements be found. We have another good example of the effects of this form of hæmostasis in its application to the pedicle of an ovarian cystoma, and this has to be remembered, that where such a result is desirable, *it produces an occlusion of the lymphatics, and thus opposes an obstacle to the spread of infection.* Further, so contracted is the surface of the divided pedicle, that it does not offer any bleeding surface calculated to contract adhesions with surrounding structures. In those cases in which the friability of the tissues renders the application of a ligature difficult and risky, electro-hæmostasis is complete and safe. It is clean and rapid in its action, permanent in its effects, and disinfectant, preventing the spread of infection while lessening the risk of adhesions. Omental and intestinal adhesions are quickly destroyed, and *so all hæmorrhage controlled.* A special forceps is used by Skene in treating intestinal adhesions to protect the intestine. In cases of vaginal or abdominal hysterectomy the ordinary hæmostatic forceps are replaced by the electrical forceps, a minute and a half to two minutes being the time occupied for each of the three clampings on either side.

Jacobs, of Brussels, reports six abdominal hysterectomies, and two ovariotomies for large cystomata with twisted pedicle, with no accident. Skene himself has done more than 200 abdominal operations, and no hæmorrhage in a single instance.

Regarding the stumps left after treatment with these forceps, Jacobs, of Brussels, says they do not slough, but become reorganised. Skene says they become slowly dehydrated and then reorganised.

I see by *The Lancet* of 4th May that Skene has brought out another work regarding this method of controlling hæmorrhage. The book is, I believe, not out here yet, but I will read, with your permission, a short extract from the review of it given in *The Lancet.*

"Dr. Skene's method is, in fact, an adaptation, and a very useful one, of the ordinary cautery. The advantages of the electrical cautery are, of course, that the instrument can be placed in position when cold, that the degree of heat can be practically instantaneously cut off. The vessels are not burned, but simply cooked ; that is to say, their albuminous constituents are coagulated, and their walls are fused together. Altogether, a study of the cases cited by Dr. Skene shows *great superiority of this method of hæmostasis over ligatures, however carefully sterilised these latter may be*"

With all due respect to the review, I call it a most unscientific one. Cooking, as *The Lancet* chooses to term it, of the tissues is one thing, but a cooked tissue is not necessarily a dehydrated one. The tissues treated by Skene's forceps have heat applied under great pressure, so that first the tissues have heat applied under pressure whilst still moist, they become dehydrated, the pressure and heat are still kept up, and their original structure by this means becomes almost obliterated, and the sealing up of a vessel most effectual.

I have myself seen these forceps used only twice, therefore I cannot say much from practical experience. One of these cases was the removal of the appendix, the other a small ovarian cyst; both cases were plain sailing, and did well. In the appendix case, the time saved when compared with the ordinary method was remarkable; there was no occasion to turn back a little cuff of peritoneum, sterilise the stump of the appendix, carefully suture mucous membrane, and then Lembert the peritoneal cuff—No—the appendix was simply clamped for one minute and a quarter, and the end cut off. No chance of soiled ligatures or leaking stump as sometimes happens with ligature when the tissues are friable and softened from inflammatory and suppurative changes—all was clean, rapid and effectual.

My own humble opinion of these forceps is that so far as the hæmostasis of certain surgical wounds go, they are the nucleus of a new era in surgery. No doubt many a time and oft, change after change in the detail of these instruments will take place, as one defect after another gradually makes itself apparent, but that the use of the ordinary ligature will become less and less will, I feel sure, be one of the results of a natural evolution as we gradually gain in experience. Few surgeons can close a wound, feeling perfectly confident that every silk ligature is aseptic, much less so with catgut. Skene's forceps leave no ground for these suspicions. The same may be said of secondary hæmorrhage; in the days of the galvanic ecraseur, secondary hæmorrhage was common, but the wire was used at a white heat, or as nearly so as contact with moist tissue would allow, on separation of the eschar bleeding often took place.

When we consider that by means of Skene's forceps we can seal up safely and aseptically either the ends of individual vessels, or if required, extensive surfaces of cut tissues, containing in their substance so large a number of both veins and arteries, that their individual ligation might at times be attended with much difficulty, that we can do this, in such a manner that instead of leaving numberless ligatures, some perhaps holding in their embrace not only single vessels, but masses of tissue prone to slough or suppurate. *We leave behind nothing but a small band of dry aseptic animal tissue*, not a piece of tissue so charred and disintegrated as to be past all possibility of reorganisation, but as I have mentioned before, simply dried and pressed at a temperature of 190° F., and so, being still amenable to the processes of absorption and reorganisation. If we look at this mode of hæmostasis in a broad and unbiassed manner (not with the preconceived idea that because it has not as yet been adopted by many men of repute, and because it does not correspond with textbook rules of modern surgical practice, that therefore it cannot be of much value), I think you will agree with me thus far, that it is worthy at least of serious and deep consideration. Old methods die hard, new ones are often brought into life after long and tedious labour, especially I think with British people, yet I feel sure you must acknowledge that although these forceps have their disadvantages just as every other method has its share of good and evil, yet if placed in the balance, the advantages will far outweigh the disadvantages.

I believe the great objections to their use, when compared with our present methods, consist firstly of prejudice and secondly the cumbersomeness and unhandiness, so to speak, of the appliances, but when we again consider what can be gained as compensation in certain cases, these objections, I think, become almost nominal, and will no doubt grow less and less as time and experience roll on the evolution of the instrument to a handier and still more efficient form. I do not contend for one moment that this method is to supersede ligature in all cases, but that it will do so in a certain class of case, where ligature is still not all that can be desired, is, I think, probable.

Gentlemen, I have very briefly, too briefly by far to do common justice to my subject, touched upon some of the main features of Skene's forceps, and contrasted them with other forms of hæmostasis. I am anxious to know your opinion as to their probable utility and promise of further use. I think the time has gone by to be too conservative in any surgical procedure. Sticking to hard and fast lines means stasis. We all know how unsavory many of our most valuable methods have been in their infancy, and how strong the objections were which were raised against them. Take the two commonest, vaccination and our present system of aseptic surgery. I hope the old time-worn objection, that because it is not a clean cut and a clean tie (I am not using the term clean in an aseptic sense) that therefore it does not conform to the rules of modern surgery, will no longer be held as a real obstacle, and let us not forget that in all probability the methods which we employ to-day with so much self-satisfaction will, as years go by, be held up to a future generation of medical men and students, not as methods to arouse wonder on account of their merit, but as curiosities of treatment by an old school who knew no better. No doubt the student of that day will indulge in the same cynical smile that students of my day did when our teacher held up for ridicule some of the teachings of the past.

I trust, Gentlemen, you will pardon me detaining you so long. I have not touched upon the subject of angiotripsy, as I feel sure it is a procedure which will never come into favour with British surgeons, though originated by so great a man as Doyen.

A NEW edition is now being published of the *Reference Handbook of Medical Sciences*, by various authors and edited by Professor Dr. Buck, it will be complete in eight volumes, and the first two volumes are now ready. Price, per volume, 31s. 6d. Subscriptions to this important work are being received by L. Bruck, 15 Castlereagh Street, Sydney, who will be glad to forward a prospectus of the work on application.

NOTES OF AN EXTENSIVE ABDOMINAL CYST CONTAINING AN ESCAPED RUPTURED HEPATIC HYDATID WITH DAUGHTER CYSTS.

By F. J. T. Sawkins, M.B., Ch.M. (Syd.), Sydney.

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J. N., 30 years of age, whose home in a sheep district and occasional employment as shearer rendered him liable to hydatid infection, about five years ago felt a sudden pain in his right side after a long ride. The pain recurred at infrequent intervals, always after riding or axe-work. At times he had attacks of "dry retching," and gradually became short of breath. About sixteen months ago, while lifting a rail, he "felt something give way on the right side." Then he vomited, and had violent pains radiating across the abdomen from the right side. His urine became "the colour of port wine"; the bowels acted freely. Nine days later he noticed that his abdomen was swollen, and the pains became worse. An exploring needle, inserted on April 20th by his doctor, withdrew fluid of a yellowish tinge. Then ensued a series of tappings:—

May 2nd, 4 quarts light green coloured fluid.
" 8th, 4½ " " " " "
" 22nd, 8 " darker " " "
June 15th, 9 " light " " "
Aug. 2nd, 3 " yellow " "

When seen at my rooms—eleven months after the last tapping—his general condition as to nutrition and circulation was that compatible with a prolonged illness such as he described. Locally, the abdomen was symmetrically distended, and the lower ribs were unduly bulged, more on the right than on the left side. The heart's apex was pushed upwards and to the left. The heart sounds were clear though feeble. The sharp edge of the right lobe of the liver was felt about three fingers' breadth below the ribs, through a considerable layer of fluid. There was slight tenderness on pressure over the right hypochondrium, and also on deep inspiration, referred to a small area where the initial sudden pain that marked the onset of his symptoms was felt. The centre of this area was just outside the nipple line in the ninth interspace. The liver dulness extended from the normal line above, to the felt lower liver edge below, and merged in the flank into the fluid dulness. A needle inserted in the right ninth interspace withdrew turbid bile-stained fluid, the search in which for hooklets was unsuccessful.

He was admitted to St. Kilda Hospital on June the 6th, and was kept in bed till the 9th, when I made a four-inch incision through the abdominal wall about three-quarters of an inch below and parallel with the right rib line. The peritoneum was noticed to be thickened as after chronic peritonitis. About six quarts of turbid, bile-stained fluid was evacuated from the cavity thus opened, and the convex surface of the liver presented, covered by a bile-stained granular membrane. Introducing my hand and tracing this surface upwards, I found an irregular depression in the liver about two and a half inches in diameter, and about quarter of an inch deep, but with an uneven base. The depression exactly corresponded in position to the external area where the patient had felt the pain. Further exploration of the cavity showed it to be limited by the falciform ligament at the middle line. Downwards, it extended through the right flank and iliac fossa to the bottom of the pelvis, and round the ligamentum teres into the left flank and iliac fossa. The intestines were pushed to the left and upwards, and isolated from the contents of the cavity by a covering of the same thin, bile-stained, granular membrane, extending from the lower edge of the liver. Through this covering could be seen the adherent colon and coils of small intestine. While exploring the right flank, a large, torn, hydatid cyst was delivered, and from the depths of the pelvis, handfuls of membranous, bile-stained *debris* and dead daughter cysts were removed. The cavity was washed out with warm saline solution from the pelvis and each flank till the fluid ran clear. A drainage incision was made in the right lumbar recess, and a large drainage tube from the brim of the pelvis placed in position. The sub-costal incision was sewn up in layers, except at its dependent angle, where an opening was left for a gauze drain leading down from the depression in the liver.

Breathing and pulse gave cause for some uneasiness at the beginning of anæsthesia, and more on recovery therefrom. Before and after removal from the table, breathing practically ceased, and the pulse became alarming.

The lumbar drain was gradually shortened, and finally removed fourteen days after the operation. I was tempted by the patient's good condition and rapid improvement to remove the gauze drain too soon, and his convalescence was delayed by the forming of an abscess between the outer surface of the liver and the ribs. This I opened (cocaine), and drained first through the tenth interspace, and later through the lower end of the abdominal wound. He went back home two months after the operation.

Jonathan Hutchinson, in his "Archives," vol. I., page 318, records a somewhat similar case. Some years ago, at Prince Alfred Hospital, I had the opportunity of making a partial *post-mortem* examination of a patient, who had died worn out by suppuration in an almost equally extensive and similarly situated cavity. In these three cases, the intestines were crowded away by an advancing thinned-out fibrous ectocyst plus the products of a plastic peritonitis, which, while isolating them from the cyst cavity, became adherent to them on the one side and to the parietal peritoneum on the other. In Mr. Hutchinson's case, the majority of the daughter cysts were still living, and he could detect no parent cyst. In the case I have recorded, the daughter cysts were dead and bile-stained, and the parent cyst ruptured and free in the cavity. The depression in the liver was evidently the incompletely cicatrised cavity from which the growing cyst had emerged and ultimately become detached.

THE OPEN-AIR TREATMENT OF CONSUMPTION.

BY ALEX. PENTLAND, M.D., LATE OF MAITAND, N.S.W.

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THE open-air treatment of consumption in sanatoria has hardly yet found its place in a well considered scheme for the prevention of tuberculosis. On the one hand it is pointed out that 80 or 90 per cent. of the cases go out improved or cured. Out of 6,000 cases treated in some 20 sanatoria in Germany for an average of three months, 87·7 per cent. were dismissed as cured or improved, 3·1 per cent. were worse, 0·5 per cent. died, 74·5 per cent. were able to work fully, 14 6 per cent. were able to work partly.

On the other hand, it is shown that we could never hope to provide for more than a fraction of our consumptives in sanatoria, and that the effects of the treatment are, so far, not very lasting. Out of 1,660 cured or improved cases who admit of being traced, four-fifths were still at work after six months, but after four years four-fifths were dead or unable to work. Out of 373 of these with cavities after four years none were able to work. Out of 863 with consolidation only 16·7 per cent. were able to work after three and a-half to four years, but 44·4 per cent. of the very early cases were still able to work after three and a-half to four years, and this though half the cases were of under one year's standing when admitted.

Seeing, then, that so many improve under an open-air treatment of a few months, and I think we may grant that these patients go out not only better for the rest and food, but with their lungs in an improved condition. Why do such a large proportion relapse so suddenly that after a very few years only a small proportion are alive and able to work? The reason is evidently that while rest and treatment are able to subdue the actively progressing tuberculosis, something further is necessary to fit the patient to meet the vicissitudes of ordinary life. We must go a stage further and harden the patient to work while still under healthy conditions. To make the treatment of real value for poorer patients we must get the patients early, keep them longer under treatment, find open-air occupations for them when dismissed, and keep them under observation after dismissal. The time spent in a sanatorium has an educational value, and to enable the poorer patient to profit by it, it is necessary that he should be placed in a position where he can practice what he has learnt.

I cannot see why an agricultural colony should not be worked in conjunction with a sanatorium, where poultry farming and fruit growing might be made to pay a portion of the expenses. The larger part of the work about the sanatorium would be done with advantage to the patients themselves by the inmates; they could as they improve be drafted to the farms, and finally a bureau could be utilized to find suitable occupations for those fully able to work. To make this possible in a country like Australia, where rich endowments are not to be looked for, but where suitable land should not be hard to get, the buildings should be simple, and fortunately the simplest have been found to answer best.

British sanatoria are generally on the small pavilion plan of one or two storeys each, containing from 12 to 20 patients' rooms; the bedrooms as a rule are neither large nor lofty (1,200 ft. cubic space), with a well ventilated passage on to which the doors open from the bedrooms, the passage having windows, say, opposite each bedroom door. Verandahs are as often absent as not; an administrative block, with dining-room for, say, 50 patients, kitchen and servants' rooms, and a detached house for a medical man. Open-air shelters can take the place of winter gardens and rest verandahs. The best shelters I have seen cost £16 each, and could be used in summer as sleeping shelters each containing two beds. As regards heating and lighting, most English sanatoria have some form of radiators, but they seem very seldom to use them in the winter. The electric light is, owing to the free currents of air in the wards and shelters, very convenient.

Such a sanatorium as I have described, with wooden buildings, should cost under £200 a bed. Electric light and hot water throughout would add not more than £50 per bed to this sum. Under such a scheme instead of accumulating all consumptives in one locality, each district should look after itself, the various councils or corporations maintaining beds, and many of the inmates could pay something towards their own support.

We have so many places in which the open-air treatment could be carried out that it is not necessary to say much about the proper situation for such a colony. The winter climate is suitable both in the dry inland districts, in New England, on the Blue Mountains, or in the southern highlands. The point is to choose a suitable summer climate, and not to be afraid of the winter anywhere if sheltered from the prevailing winds. Too much has been said about the unsuitability of the coastal regions in Australia. Most cases of consumption would do better, I am convinced, during the summer in a well chosen position on the coast than in the dry inland districts. Dust is harder to guard against than rain. The main thing is a bracing situation; if a bracing climate does not agree, the case is not likely to suit out-door treatment.

REMOVAL OF A TUMOUR OF THE SCAPULA, WEIGHING 27 POUNDS, BY THE INTERSCAPULO-THORACIC AMPUTATION. (Illustrated).

By W. J. Stewart McKay, M.B., M.Ch., B.Sc., Senior Surgeon to the Lewisham Hospital for Women, Sydney.

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K.G., spinster, aged 39, well developed, and well nourished. She first noticed a pain in her neck four years ago, and afterwards found that a tumour was forming on her shoulder-blade. This increased at first very slowly, but during the last year the growth has been very rapid.

Present Condition.—On viewing the patient from behind a tumour is seen, rounded in form, springing from the right scapular region. The vertebral border and the inferior angle of the bone can be defined, but the tumour rises above the upper border, and hides the outline of the trapezius; while the axillary border is buried in the mass which extends down the upper half of the postero-external surface of the arm. There is no sign of ulceration, the mass is exceedingly hard, and knots of enlarged veins cover its surface The patient does not complain of pain, but says that life is a burden to her on account of the weight of the tumour.

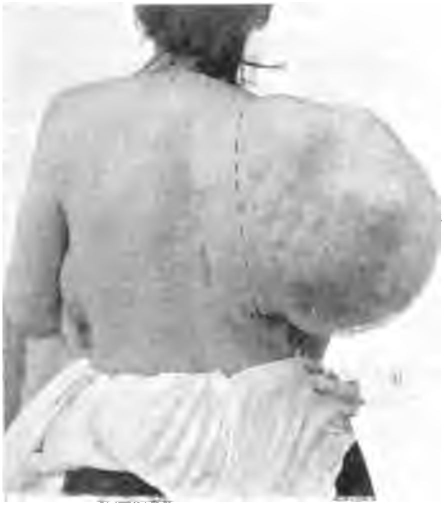
Operation—The operation was performed at the Lewisham Hospital for Women. The anæsthetic was administered by Dr. Pym, Dr. F. Barrington stood on the left of the patient and gave me the greatest assistance, while Dr. Maguire manipulated the arm, and supported the tumour; and this was no light task. As the patient lay on the table, the mass was so large that she was tilted to the left, it was therefore found necessary to bring her to the right edge of the table, when Dr. Maguire supported the tumour, while I stood between the abducted arm and the table.

An incision was made along the clavicle from the outer border of sterno-mastoid to beyond the acromio-clavicular articulation, and everything was divided down to the bone. A few veins were severed. The periosteum was divided along the horizontal line corresponding to the wound, and also vertically, and it was then stripped off with Farabeuf's elevator. A broad director was slipped under the clavicle, which was steadied with lion-forceps, and divided by a saw with fine teeth. The clavicle having been pulled up by the lion-forceps, the periosteum and sub-clavius were stripped off, and the bone was again divided and removed. An incision was made through the fascia along the lower border of the omo-hyoid, and the cords of the brachial plexus were sought for—every vein encountered being tied so as to have a clear field. The artery was found and tied with ease, No. 2 twist silk being used; the ligature being passed from above downwards by a needle shaped like one of Macewen's hernia needles. The artery was then divided.

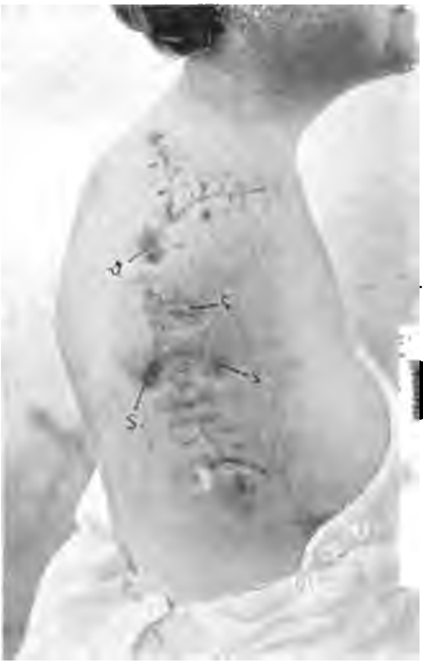
The anterior flap was next marked out, the incision extending from the middle of the clavicle outwards beyond the groove between the deltoid and the pectoralis major, and then downwards across the axilla, which was almost filled by the tumour. The cephalic vein, very much enlarged, was picked up, and the acromio-thoracic branches were seized after the pectoralis major had been reflected. The pectoralis minor was severed close to the coracoid process, and the clavi-pectoral fascia was divided, after which the axillary vein was sought out, and when found followed up to the lower border of the sub-clavius and there ligatured. The axillary artery was then seized between two pairs of forceps, and pulled down, after which a finger was slipped under the bridge of tissue formed by the sub-clavius and the supra-scapular vessels, and these structures severed, the vessels being caught by Dr. Barrington. The cords of the brachial flexus were then cut through.

The third step was then commenced by Dr. Maguire going to the left side of the table and pulling the right arm across the chest. An incision was then made from the acromio-clavicular articulation parallel to the superior border of the scapula. This incision reached almost to the superior angle, and another incision extended from that point downwards, parallel to, but two inches external to, the vertebral border of the bone, and this was continued round the scapula until the anterior incision in the axilla was reached.

Beginning at the distal end of the clavicle, the trapezius was divided along the line of the upper incision, and this was a task of no small difficulty, on account of having to work in a deep fossa, due to the upward growth of the tumour. Some blood was lost at this stage, and after working towards the superior angle of the scapula and securing the posterior scapular, it was found impossible to continue the operation except by kneeling and looking up at the tumour, consequently the arm was once more abducted and the muscles were severed by working from the front; beginning at the inferior angle, and going steadily up to the superior angle of the scapula. The flaps came together easily and silk gut sutures were inserted, while a small drainage tube was placed at the junction of the upper with the middle third of the incision. The operation was finished in two hours; the patient left the table with a normal pulse, as a few pints of normal saline solution had been transfused during the latter part of the operation. The wound healed by first intention, and the pulse and temperature remained normal throughout Four small sloughs formed, these being due to the pressure exerted by some metal buttons that I had employed in connection with some tension sutures.



L.I. Line of Posterior Incision.



D. Position of Drainage Tube. S. Sloughs due to pressure of buttons.

To Illustrate Dr. McKay's Paper.

Remarks.—Dr. Burfitt examined a section from the tumour, and pronounced it to be a chondroma.

The only point in connection with the operation that I wish to emphasise is this:—Having performed it several times in the dead body, I became convinced that the only difficult step is the passing of the ligature round the sub clavian vein. If the vein be wounded, the field is flooded and obscured by blood, and air may be drawn into the vein. Instead, therefore, of wasting time over the sub-clavian vein during the first stage of the operation, I found it much easier to tie the axillary vein after reflecting the pectoral muscles. I can commend this step to others.

The insertion of the tension sutures held by metal buttons was a mistake, as sloughs the size of a florin formed where the buttons pressed.

For some weeks after the operation the patient still felt the weight of the tumour, and at times she still feels it.

NOTE.—Since writing the above, I have performed this operation on a boy for sarcoma of the upper part of the humerus. I again found that tying the axillary vein expedited matters.

NOTES ON A CASE OF INTUSSUSCEPTION.

BY WALTER F. BURFITT, B.A., B.SC., M.B., CH.M., GLEBE POINT, SYDNEY.

INTUSSUSCEPTION in infants is a disease which may be so easily overlooked, and an error in diagnosis is fraught with such serious consequences to the patient, that the report of a case presenting some unusual symptoms may not be devoid of interest.

L.O.C., *æt.* 8 months, was brought to the out-patient's department of the Children's Hospital on February 19th, 1901. The mother gave the following history:—The patient had had slight diarrhœa for two days. On the previous day the child fell out of bed in the morning. Soon afterwards, as the child seemed out of sorts, the mother gave a dose of castor oil. During the afternoon the mother noticed that the child was passing blood and slime by the bowel. This occurred three times before the patient came under observation; no fæcal matter had been passed. Vomiting occurred a few times, but this caused no distress. There was no history of suddenness in the onset, nor did the child scream. She strained while passing the blood, and at this time alone seemed to have abdominal pain.

On examination, about twenty hours after the onset of symptoms, the patient was seen to be a well-nourished infant, did not look very ill, took notice of what was going on, and played about in the mother's lap. The complexion was rosy. Temperature 100·6°, pulse about 100. The abdomen was full, not tense, slightly if at all tender, and palpation of the right iliac and lumbar regions seemed not to cause pain; but as the child was restless under examination it was considered advisable to give an anæsthetic.

Examination under the anæsthetic revealed the presence of the sausage-shaped tumour in the position of the ascending colon. Rectal examination was negative. The mother, in spite of every argument, refused to leave the infant in the hospital, as she doubted the diagnosis.

Three days later, on February 22nd, the child was again brought to the hospital. She had vomited several times up to the previous night, but not since. The passage of blood and slime occurred at short intervals. No fæces had been passed; the straining with each motion was still present, and the child also had occasional colicky pains.

Examination showed that the child was practically in a dying condition, was very pale and waxy-looking. Temperature, 104·2°. The pulse was running, small and irregular. The abdomen was lax, no distention or tenderness, and the sausage-shaped tumour, about the same size and position as previously, could be easily detected.

Under chloroform Dr. Binney injected about one pint of olive oil into the bowel, and though the size of the mass was diminished, reduction was not complete. However, as the patient was rapidly getting worse, and was practically moribund, a section was not attempted. Just before the injection of oil the child passed a normal motion, fluid, homogenous, of a brownish-yellow colour, free from blood, and a few ounces in amount.

After returning to the ward, another normal motion was passed. Between this time and death, five hours later, the patient was restless, did not vomit, nothing was passed by the bowel; the pulse rate increased until it was said to be 200 per minute, and the temperature fell to 102·6°.

Post-mortem.—A well-marked, rather tight ileo-cæcal intussusception about three inches in length was found. The mesentery of the intussusceptum was congested, and showed small subserous ecchymoses. There was slight excess of fluid about this region, but no general peritonitis, and no deposit of lymph.

In reviewing this case a few points suggest themselves as being worthy of comment:—

1. The onset was not sudden, nor was there any sudden attack of pain causing a scream. There was no pain on palpating the tumour, the "*signe de Dance*" was not marked, and the child seemed to have pain only while passing the blood and straining, and throughout the illness the abdomen was lax, and slightly, if at all, tender.

2. The child, twenty hours after the onset of

symptoms, looked so well that one might have been apt to look upon the case as a mild attack of colitis rather than of intussusception.

3. Perhaps the most striking feature of the case was the passage of the normal fæcal matter just before and shortly after the oil injection. The passage of fæcal matter during the course of an intussusception has been several times noticed. In this case it occurred after the passage of blood had ceased. It was not due to the reduction of the lesion, and it is scarcely likely that, with the constant straining and passage of blood, fæcal matter or intestinal secretion could be retained for three days on the distal side of the obstruction. I should think it more probable that the obstruction was not complete, or if so previously became incomplete shortly before death, even though the intussusception was still large and would have probably needed resection of the intestine for its cure.

HYDROGEN IODIDE (HI.)

AS AN ALTERATIVE.

I. N. LOVE, M.D., Vice-President American Medical Association, in *Medical Mirror*, June, 1894, writes :—"From clinical observation I am convinced that Hydriodic Acid acts beneficially as an Alterative, chiefly in that it is a special stimulant to that function of the body by which all its parts are undergoing continuous disintegration and renewal.

"Under its use digestion is improved, nutrition encouraged, waste products are more rapidly carried away, and tone and vigor result.

"Iodine in this form causes no irritation, because it is an acid solution, which does not interfere with digestion. Since it has been made stable, the writer has constantly used it for 15 years, and never had occasion to regret it.

"The medical profession is under special obligations to Mr. R. W. Gardner—the Originator—for his careful, skilful, scientific work in this direction, and should endorse him by its support."

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HEREDITY AND DISEASE.

BY J. FLYNN, M.B., CH.M., R.U.I., SYDNEY.

(*Continued from Page 381, "Australasian Medical Gazette," September, 1901.*)

Heredity in Disease of the Organs of Special Sense.
(a) Diseases of the Eye.

THE influence of heredity has long been recognised as an important factor in the history and etiology of several diseases of the eye.

Heredity of Colour Blindness.

The heredity of Daltonism or congenital colour-blindness* has been already referred to. Horner's law that the sons of daughters whose fathers were colour-blind are most likely to be similarly affected holds true in nine-tenths of the cases. The comparative exemption of females from this chromatic defect has no connection with their greater familiarity with coloured objects, which but sharpens their natural colour sense; in them the condition exists as a "latent character" which they generally transmit to their male offspring. Sometimes colour-blindness becomes a "dominant" character in the female,[1] and is transmitted in the same sex. Thus Curner relates an instance where colour-blindness appeared *only* in *females* for four generations. A lady was colour-blind; her mother and two sisters were similarly affected, her brother being free from the defect. This lady had six children, one son not colour-blind and five daughters affected like herself. The oldest daughter had four children, two of them girls, both colour-blind. The second daughter had a boy and a girl, the latter colour-blind. Whether the female is exempt, as she generally is, or whether she be affected, as she occasionally is, she *alone* transmits the defect. Whatever theory of colour-blindness be finally accepted; whether we are to attribute defective colour-vision to the absence or functional inactivity of certain retinal elements which receive the impression of certain colours; or whether it be due to absence of certain substances supposed to exist in the retina, changes in which produce colour sensations, in either case we have to do with an innate structural peculiarity. Colour-blindness then supplies another example that a physical anomaly tends to be transmitted to the offspring. As we have seen, the transmission generally occurs from the grandfather to the grandson, with the apparent omission in the intermediate parent of the opposite sex. The condition is found in every race, the alleged freedom of Asiatic tribes being probably due to

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(*) Acquired colour-blindness—an important symptom in many morbid conditions, notably in some toxic forms of amourosis, *e.g.*, those due to tobacco and alcohol, is not transmitted no more than the diseases in the course of which it occours.

(1) This is specially noticeable in female quakers, in whom Daltonism prevails to the extent of 5½ per cent.

faulty methods of testing. It is not altered by education, a person born colour-blind dies so, alleged cures are to be attributed to mistaking colour-ignorance for colour-blindness. Four per cent. of males are colour-blind and about one-quarter per cent. of females.

Retinitis pigmentosa a "family disease."

Retinitis pigmentosa spreads laterally, but does not descend vertically in a family. In this and other features it bears a striking parallel to Kaposi's disease. What one is for the skin the other is for the eye. In neither of the conditions are any changes in the affected organ to be observed at birth; in both there is an inherited tissue proclivity. No known exciting causes, other than exposure to air and light, are required to start either process, and no treatment has any effect on their progress. In the one the skin is pigmented, in the other pigmentation deranges the retina. Both are "family" diseases. If there are many brothers and sisters in a family two, three or more are almost certain to be affected. Both conditions seem to be due to the chance meeting of certain proclivities in the parents, which become intensified on transmission. A tendency to freckles in the parents may become Kaposi's disease in the offspring, and although no minor form of retinal pigmentation has been noted in the ancestors of those suffering from retinitis pigmentosa, yet the fact that many of those affected are the offspring of consanguineous marriages, in which any inherited proclivity is, as it were, multiplied by itself, it is easy to understand how a minor deposit of pigment may be present in the parents, although not demonstrable, nor producing symptoms.

Heredity of abnormal refraction.

Anomalies of vision dependent on mechanical causes such as myopia, hypermetropia and astigmatism are hereditary.

(a) Typical myopia.

In discussing the heredity of myopia it may be well to premise that we are not here dealing with shortsightedness due to disease of the tunics of the eyeball; our remarks are limited to those forms of myopia, by far the most numerous, which represent a particular type of eye, somewhat analogous to stature higher than the average. Nor is it denied that a large portion of shortsighted people have acquired their condition for themselves, and do not owe it to inheritance at all, since it is admitted on all hands that a normal eye during the period of growth may be rendered myopic by continually looking at objects from a very short distance, even when no hereditary predisposition can be shown to exist. But it is equally certain that a large percentage of myopes owe their affliction to inheritance; it is well known to ophthalmic surgeons that myopia runs in families. There are families in which more members are myopic than could be accounted for by mere chance distribution. Sir William Bowman, who supplied Darwin with notes on eye-inheritance for his work "Animals and Plants under Domestication," held that when both parents are myopic the hereditary tendency is heightened in the offspring, and some at least of the children are myopic at an earlier period and in a higher degree than their parents. Dr. Ferguson, of Dunedin, estimates that 25 per cent. of his cases of school myopia were hereditary, and mentions one family which furnished seven myopes who inherited from the mother.

The nature of the hereditary predisposition is not known. Bono considers that the formation of the skull may have some influence, and points out that a dolicho-cephalic skull, generally accompanied as it is by greater depth of the orbits, is conducive to myopia. His arguments from the cephalic index though are not satisfactory. Myopia is rarely present at birth; though Jaeger contended that it was frequently congenital, all recent observers state that the prevalent refraction at birth is hypermetropia. Thus Ely in 150 babes found 106 instances of H. 27 of M. and 21 of E. Probably it would not be far wrong to state that a child is usually born hypermetropic[2], that the ordinary evolution of the eye is towards emmetropia, that a certain percentage oscillate on either side of this point, some not reaching it and some passing it and becoming myopic, and that though some exciting post natal cause such as close eye-work, may favour this myopic oscillation, yet that when the tendency is strong it can occur without such aid, as is seen in these cases where high grades of myopia are met in illiterate persons.

Statistics lack cogenc in establishing the influence of literary wo either on th existence o the degree myopia.

Although the influence of literary work on the production of myopia is generally admitted, still statistics lack cogency in establishing either the existence or the degree of the influence of such work. Elaborate statistics, which we need not here stay to describe, have been compiled in America, Germany, France and Switzerland, setting forth the percentage of cases and the degrees of myopia in various schools, the general outcome of which goes to show an increased number of myopic eyes and an increased degree of myopia in passing from lower to higher schools and from lower to higher classes in the same school.

It has, however, to be borne in mind that

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(2) It is interesting to observe that the eyes of the higher mammalia are nearly all hypermetropic, and that myopia is peculiar to the human race, so that it might be said myopia *in posse* is associated with the development of the species myopia *in actu* with what is called civilisation.

the age of the pupils increase as we pass from lower to higher schools, and that myopia progresses with the age of the individual altogether independently of school-life. Again the very same statistics that are adduced to show the influence of eyework on the progress of myopia also show that it develops only in a certain percentage of eyes subjected to the same strain in schools. Lastly, the inferences drawn from these statistics is an instance of what logicians speak of as "arguing in a circle," since there are no statistics to show to what extent the condition of short-sightedness may have influenced persons so affected in choosing a literary calling. In high-class schools it is to be presumed the majority of students are preparing for such callings, and therefore instead of literary work producing myopia, it may be that it is the myopia that is the occasion of a certain proportion of the literary work or at least of the choice of the profession which necessitates such work. It is evident therefore that statistics are far from conclusive as to the influence of study in either causing or increasing myopia.

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As we compare the relative prevalence of myopia in different communities we are struck with the almost complete absence of it in uncivilised countries, and with its varying frequency in countries equally civilised. Savages are generally possessed of a long range of distinct vision. Rengger states that he has repeatedly observed Europeans who had spent their whole lives with wild Indians and yet could not compare with them in range of distinct vision.[3] That the frequency of this state of refraction varies in countries equally civilised we have ample evidence. Thus Dr. Cohn, of Breslau, found that out of 10,000 students in his own country there were 1,004 myopes, about 10 per cent, whereas in the Chelsea military school in England he could only find three myopes among 1,300 boys. Some one may suggest that the disparity might be due to the different environment of school life in both countries, but in America, where the conditions of school life are the same, a similar difference is found in the percentage of myopes among children of German and British parentage.

In Australasia, peopled almost exclusively by those of British extraction, the same small percentage of myopia is observed as in those of British parentage elsewhere. Thus, Dr. Ferguson, of Dunedin, in his address at the Brisbane Congress, estimated school-myopia in New Zealand at not more than one per cent. of eye diseases. This estimate coincided with the experience of Dr. Pockley as to its prevalence in New South Wales, and with that of other representative ophthalmic surgeons from the various States, and was endorsed by them. Dr. Ferguson's conclusions were arrived at from a review of his private case-book for sixteen years, and checked by the percentage of myopes attending the Otago Girls' High School, approximately less than six per cent. In schools of a similar grade in Germany, according to Cohn, the average percentage runs from 22 in the lowest form to 58 in the highest.

Other countries supply similar instances of this varying frequency, but to introduce a multitude of figures here would only tend to obscure the trend of thought. Thus Dr. Metz, of Antwerp, examined 7,040 scholars, ranging in age from 7 to 14 years, and found only 2·13 per cent. myopes, and of these nearly one-half had but one dioptre of myopia. Cohn, on the other hand, found 6.7 per cent. of children in German school of the same grade to be suffering from more than one dioptre of myopia.

Those that have given special attention to this subject are satisfied that there exists a "concomitant variation" between the number of myopes in a community and the length of time that country has been civilized; that those countries that have been longest civilised have the largest proportion of myopes, whether they now lead in educational advancement or whether they lag behind. It would seem that the environment of civilisation supplies conditions under which those variations of the eye, those fluctuations on either side of the average which we call myopia (and hypermetropia), are favoured rather than that any adaptation has taken place in the eye due to the *direct* influence of external conditions such as close eye-work.

In savage communities, where so much depends on the possession of good distant vision, the ordinary laws of natural selection will either eliminate the myopic eye or at least prevent its perpetuation. On the other hand, in the struggle for existence in civilised life, myopia does not prevent anyone from earning a living. There is, accordingly, a cessation of the controlling influence of natural selection. A goose or a duck must possess strong powers of flight in the natural state, but as such powers are no longer necessary for obtaining food when it is brought into the poultry-yard, a rigid selection of individuals with well-

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(3) All savages, examined with regard to their ocular refraction, have proved by the high degree of their acuteness of vision that if they are hypermetropic, because of the structure of their eyes, they can remedy this defect perfectly by means of their ciliary muscle.

developed wings ceases among its descendants. Similarly in civilized life a rigid selection of individuals with good distant vision ceases, variations of the eyes are favoured, heredity transmits these variations, and therefore the longer the time this favouring process has existed in a community, the greater will be number of myopes in that community. We are not therefore obliged to attribute a predisposition to myopia to the *direct* influence of external conditions, or to regard its prevalence in a country as due to the transmission of *acquired short-sightedness* All analogy[4] leads us to believe that myopia produced by individual application dies with the individual, that it is not transmitted.

By way of summary, then, we may state that myopia among civilised nations depends on two factors (a) on *panmixia*, or the cessation of the controlling influence of natural selection, favouring natural variations of the eye; (b) on individual production by reading at short distance. The latter, the acquired myopia, is not transmitted, dies with the individual. The former, representing a particular type of eye analagous to stature higher than the average, due to intrinsic variations, is transmitted, and prevails in a particular community, not according to its present intellectual advancement, but accord- to the length of time it has been civilized.

The heredity of malignant myopia.

Hitherto we have been dealing with myopia regarded as one form of the normal evolution of the eye, a form favoured as we have seen by an environment of civilisation—a type of eye, hence it is usually known as "typical" myopia. But there remains another kind of myopia which is pathological, and the disposition to which is no less hereditary. In a certain number of eyes the refraction does not remain stationary, but increases rapidly and constantly and is accompanied by changes at the *fundus oculi*. This is what is known as progressive, malignant myopia, and is probably distinct from the typical form from the commencement. Entering in as one factor in the causation of this condition is a nutritional disturbance of the tunics of the eyeball. This nutritional disturbance itself depends on various circumstances, all of which are hereditary, such as arrests of developement of sclerotic, a peculiar conformation of the eye-ball, and above all on a scrofulous constitution, affording, as it does, a congenial soil to choroiditis. Choroiditis predisposes towards malignant myopia in a twofold manner, first by reducing the power of resistance of the ocular tunics, and secondly, by the increased secretion, causing increased intraocular pressure. So that as Landolt says, "the two principal factors which give rise to maligdant myopia; a *disturbance of the nutrition of the membranes of the eye*, and the *conformation of the cranium* are eminently hereditary."[5] If then typical myopia is handed down from one generation to another the disposition at least to the malignant form is also transmitted, although when exciting circumstances are wanting it may never be actually developed.

Heredity of hypermetropia.

Hypermetropia has been spoken of as hereditary by Donders; it often occurs in several children of the same family where one of the parents has been affected. Donders, too, has pointed out that in a large proportion of cases of convergent strabismus, hypermetropia is to be regarded as a cause, and hence if one condition runs in families so does the other. On the other hand, the vast majority of hypermetropic subjects have no squint, nor is the more hypermetropic of the two always the squinting eye, nor does it happen that the higher the degree of hypermetropia the greater the amount of squint as one would expect on Donder's theory; in high degrees of hypermetropia, as a rule, squint does not occur. Lastly, the occurrence of squint in emmetropic and myopic individuals where no excessive effort of accommodation is necessary, must seek solution from another source. This would seem to indicate that in order that strabismus may occur some other factor must be present. That other factor is generally admitted to be a want of equilibrium between the ocular muscles whether nervous in origin, as Grut thinks, or muscular, as Schweigger supposes, we need not here discuss. It is probable that this disturbance of muscular balance, and the amblyopia of the squinting eye, in a certain percentage of cases, are both congenital,[6] and often both hereditary.

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(4) During the past twenty years since scepticism regarding the transmission of acquirements has arisen owing mainly to Weismann's work, the most profound thinkers of the age have searched plant and animal life in vain for a single instance of the transmission of an ' acquired character." Some one may doubt or deny the force of the *a part* argument here and say, granting that neither animal nor plant life can supply an instance where characters acquired during the life-time of the individual were transmitted the rule may not apply to pathological acquirements in man in general, or to myopia in particular. Zeigler will answer: "An unprejudiced examination, however, of the collected material which is brought forward in support of this opinion (*i.e.* the transmission) shows that observations which establish the existence of such a thing as the *hereditary transmission of acquired pathological characteristics in an individual do not exist.* . . . . If, for example, a disease such as mental disease or myopia is the product of a special inherited predisposition, plus the effect of harmful influences, only that part can be transmitted which was received by inheritance but not that which was derived from external influence, *i.e.* the part which was acquired.—"General Pathology."

[This portion of our subject will be treated in detail in a subsequent paper.]

(5) The Refraction and Accommodation of the Eye, p. 497.

(6) At any rate in hypermetropia the external recti are apt to be congenitally less powerful than the internal, and in a large proportion of cases the amblyopia of the squinting eye is not progressive, and it would be so if it were acquired, if it arose *ex anopsia*.

eredity of tigmatism

Not only are those anomalies of refraction occurring at surfaces of symmetrical curvature hereditary, but also that at surfaces of unequal refractive power. It is well known that heredity is the most prolific of all causes of astigmatism. The astigmatism of the father as of the mother descends to both boys and girls. Steiger, who has closely analysed the results of accurate investigation concerning astigmatism, its origin, nature, relation to the length of the eyeballs, etc, in about 5,000 eyes, emphasises in a marked manner its hereditary nature. He finds the higher the astigmatism the greater the deviation from horizontal and vertical; and he considers that even the position of the axes is inherited. As is well known the vertical meridian is generally (over 90 p.c.) the most convex, and hence if astigmatism "with the rule" occurs in parents and children, the element of coincidence has to be reckoned with and discounted. But in the comparatively rare cases (8 p.c.), where the vertical is the meridian of lowest curve, the influence of heredity is more strikingly manifest, when, as sometimes happens, astigmatism "against the rule" is handed down in that form from parent to offspring. Thus Javal states, "In my family nearly nine persons in ten present in both eyes astigmatism that is contrary to rule. It has seemed to me that, in general among the Jews, the defect assumed preferably this unusual direction."

taract is netimes editary.

Cataract is sometimes hereditary. Thus a case is related by Dr. Thompson, of Cardiff, where a father and three daughters, aged respectively nine, seven and five years, all showed dense cataracts. A history was elicited showing that cataract had existed in members of this family for four generations at least. A similar instance with a family "cataractous tree" has been reported by Berry. Bowman states that opacity of the cystalline lens is commonly observed in persons whose parents have been similarly affected, and often at an earlier age in the children than in the parents. When cataract affects several members of a family in the same generation, it is often seen to commence about the same age in each, *v g.*, in one family several infants or young persons may suffer from it, as in the cases just referred to; in another several persons of middle age.

reditary ic ophy.

Leber has called attention to a form of optic atrophy which attacks several members of a family, and the tendency may extend through several generations. Under the term hereditary amblyopia, several instances are recorded among writers in the first half of the last century of defective sight commencing at certain periods of life, and occurring in several members of a family for two or more generations. Leber, after referring to the most interesting of these cases, founds his description of hereditary optic atrophy on 15 cases of his own occurring in four families, and 40 cases observed by others—in all 55 individuals in 16 families. According to Leber the disease commences a few years after puberty, between 18 and 21 years, though it has occurred as early as five and as late as 43. The disease appears almost exclusively in the male members of the family though it is frequently transmitted through the female line, and it occurs even in children of the same mother by different fathers. Since Leber's paper (1871), there have been several additions to the literature of the subject, notably by Habershon, who adds 75 other cases. The latest, and by no means the least interesting addition, are the two instances related by Dr. Hawkes in *A.M.G.*, June 20, 1900. In some instances of tobacco amblyopia, there would seem to be an inherited morbid weakness of the optic nerve or at least an inherited idiosyncrasy which renders the different members of the same family peculiarly susceptible to the poisonous influence of the drug. Some authorities see a relation in those two classes of cases. In Leber's disease the change takes place spontaneously at a comparatively early age in several members of the same family. In the other class the influence of a toxic agent, such as tobacco, is required as a determining agent. Hutchinson, commenting on a case where a woman aged 43 consulted him with symptoms of amblyopia, who had a son and nephew suffering from tobacco amaurosis, states that "when tobacco causes blindness it does so in virtue of an idiosyncracy, and that it is by no means improbable that such idiosyncracy will be found occasionally in several members of the same family, and that it may manifest itself in response to more than one kind of exciting influence"

The tendency to Glaucoma is sometimes transmitted.

Glaucoma is sometimes hereditary. Thus Howe records an instance where in three generations eight individuals in the same family were more or less affected. Priestly Smith measured the diameters of the cornea in a father and daughter, both subjects of glaucoma, and found them exceptionally small. From this and subsequent examination of the excised eyes, he is of opinion that subnormal dimensions of the cornea and globe are transmitted, that there is thus a relatively large size of the lens and a liability to closure of the filtration angle. There would also seem to be a racial predisposition to the disease; thus, according to Brugsch, while other races show 1 per cent. affected. the Semitic race show 4 per cent. But there may be a hereditary tendency to glaucoma, quite independently of any peculiar formation of the eye. When we reflect that the subjects of gout, or persons whose near relatives suffer from it, are peculiarly liable to glaucoma, that there is a striking analogy between the two diseases, that the more salient features of acute glaucoma the "arthritic ophthalmia" of earlier writers recall those of an acute attack of gout, while chronic glaucoma no less vividly reminds us of chronic gout, we are prepared to realise that if one disease runs in families so does the other.

Heredity of congenital ocular anomalies.

A statement of Dr. Lucas to the effect that there is not a single portion of the eye that is not subject to anomalies, and not one of these that is not hereditary, received the approbation of Bowman. Space will allow only a passing reference to a few of these Congenital absence of the iris has been transmitted for three generations, cleft iris—a remnant of the choroidal fissure, through which the mesoblast protrudes to form the permanent *pecten* of birds—for four generations, being limited to the males of the family. Congenital smallness of the eyes has been inherited. Portal records an instance where a father and two sons suffered from congenital dislocations of the lens, due to arrested development of the zonula of Zinn. Heterophthalmos, where the iris of one eye is of a different colour from that of the other, has been inherited. A case is related by Osborne, a past president of the Irish College of Surgeons, where a family of sixteen sons and four daughters all had eyes resembling in miniature the markings on the back of a tortoise-shell cat. The mother of this large family had three sisters and a brother all similarly marked, and they inherited this peculiarity from their mother, who belonged to a family notorious for transmitting it to posterity.

Inheritance from *remote* ancestral eyes.

(a) Pineal gland.

The ancestral history and embryonic development of the eye throws suggestive and interesting light on many obscure points. Thus the vestigial nature of the pineal gland is shown by its relation to the pineal eye of certain amphibia and lizards. Baldwin Spencer has demonstrated that the pineal gland in all mammals is the rudiment of what was once a functional eye in the Ichthyosaurus, Pleisioaurus, and many other animals now extinct. It is probable that the gradual development and greater utility of the lateral eyes have led to the extinction of the median eye. Even at the present time this process of extinction is only partially effected in certain species of lizards, *e.g.*, in the New Zealand Sphenodon In this species at the vertex of the head is a bright scale covering a gap, the parietal foramen, in which is situated the eye, connected by its stalk with the pineal gland. When this eye is examined microscopically it shows the structural details of functional eyes, such as cornea, lens, retina, pigment, &c.[7] Darwin, speaking of vestigial organs states, "by whatever steps they have been degraded into their present condition they are a record of a former state of things, and have been retained solely through the power of inheritance. They may be compared with the letters in a word still retained in the spelling, but become useless in pronounciation, but which serve as a clue for its derivation.[8]"

(b) Pituitary body.

The striking analogy between the development of the eye and that of the pituitary body and its surrounding structures may yet explain many things. The primitive optic vesicle in lateral eyes invaginates in its centre, and the infolding becomes the secondary optic vesicle or "optic cup." The two layers of the primary optic vesicle become the different layers of the retina, while the invaginated circular piece of ectoderm becomes the lens. The posterior lobe of the pituitary body is the enlarged end of the infundibulum, an evagination of the floor of the inter-brain. The cells in the lower end of the infundibulum specialise into nerve cells, and nerve fibres also develop. In some of the lower vertebrates these elements are retained throughout life, but in higher types, man included, the nervous character of the tissue is lost; the posterior lobe too, is hollowed out to form a concavity for the lodgment of the anterior lobe, itself an offshoot from the primitive buccal epiblast, which becomes a closed vesicle. So that comparative anatomy and embryology would seem to indicate that there had been a pituitary eye or other sense organ corresponding to the pineal sense organ before the present mouth was evolved In any case they prove it a very complex organ, consisting of an anterior secreting glandular lobe, a water vascular duct and a posterior sensitive lobe. The last two, though well developed and functional in ancestral vertebrates, have now become atrophied in structure and function above larval acraniates, while the first has become a ductless gland, and its secretion an "internal secretion" which is absorbed by the lymphatics. Whatever may have been its primitive function it is probable that it is now the growth centre, or at least the proportion regulator of the skeleton. The frequency with which it is involved in

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(7) These have been ably worked out in *Hinulia* and *Grammatophora* by Dr Stewart McKay, and embodied in a paper published in the transactions of the Linnean Society.

(8) The Origin of Species, vol. II. p. 263.

acromegaly and gigantism on the one hand—conditions bearing so intimate a relation to each other that acromegaly might not inappropriately be termed gigantism of the adult, and gigantism an acromegaly of the adolescent—and on the other hand the stunting of growth that occurs in post natal adenoids—structures developed round the pharyngeal orifice of a duct that bears a close embryological relation[9] to the pituitary body—lend support to and illustrate this view.

The eye affords a striking proof of *recapitulation.*

Nowhere have we clearer proof of Haekel's dictum that ontogeny is a recapitulation of phylogeny or that the life-history of the individual is an epitome of its ancestral history than in the eye. Thus in the development of the eye of the cuttle-fish we have transitory stages paralleled by permanent conditions in lower forms, such as is seen in *solen*, *patella*, *haliotis*, and *fissurella*. The eye of the cuttle-fish not only gives an epitome of the history of the development of the visual organ in several distinct species of molluscs, but also traces out the gradual development of the eyes of the ancestral forms from which the cuttle-fish itself is descended.[10]

The development of the eye throws light on the participation of the organ in disease elsewhere.

In higher forms the embryology of the eye throws light on the intimate participation of the organ in general or constitutional disease. The close correspondence between the development and functions of the brain and its genetic outgrowths, the retina and optic nerve; the intimate relation in organic evolution between ocular development and the powers of locomotion and in a reverse direction between locomotor ataxia and visual failure, the fact that the eye and its appendages are supplied in whole or in part by six out of the twelve cranial nerves all attest the intimate relation between the eye and the rest of the body. We see this relation, too, in the sympathy in health and disease between the epiblastic elements of the eye and epiblastic tissues elsewhere, and that between the mesoblastic ocular textures and other mesoblastic tissues. Thus syphilis is a disease of mesoblastic tissues, and syphitic affections of the eye begin in mesoblastic textures and only secondarily involve the epiblastic portions. The stunted teeth of congenital syphilis are defects of the mesoblastic dental papillæ, not of the epiblastic enamel. Interstitial keratitis is a disease not of the epiblastic epithelium of the cornea, but of its mesoblastic connective tissue. Again in a large proportion of cases of lamellar cataract, the patient will be found to have defective teeth. The changes here occur in lines running horizontally across the whole set of permanent incisors and canines, and is due to absence of enamel. And when we reflect that the lens and the enamel organ are both derived from epiblastic matrices, it is probable that the development of both are disturbed by a common cause. This cause is generally attributed to local spasms in the ciliary body and the vessels of the enamel respectively, and as these spasms may be entirely absent or not always present at the same time in both organs, we may have laminated cataract without defective teeth, and the latter without the former. In strumous children cutaneous lesions, such as eczema of the eyelids external ear and face, frequently accompany phlyclenulæ of the epiblastic layer of the cornea. The corneal change, too, in herpes zoster ophthalmicus is likewise epiblastic. The accidental observation of the coincidence of the disease of the integument and of the eye has sometimes served to explain conditions previously obscure; thus the eruption of miliary warts upon the integument of the forehead in a case of *marginal keratitis (spring catarrh* of continental authors) lead Knies to examine into the analogy between the two conditions, with the result that he interprets spring catarrh as a warty formation upon the conjunctiva.[11]

Mooren has often seen the development of cataract during chronic cutaneous eruption. The relation between skin disease and the development of cataract has been emphasised by Nieden and Rothmund. The latter observed the development of cataract in early childhood among fourteen children of three families with a peculiar affection of the skin. The skin disease began at the sixth month, the cataract between the ages of three and six years.

Any more detailed reference to these "primæval sympathies" here would carry us too far afield. We can here only indicate the fact, and do so by tabulating the embryonic origin of the various structures of the eye and their genetic co-ordinates elsewhere. (See table page 437).

Heredity in disease of the organs of hearing.

In discussing the heredity of deafness it is important to bear in mind the distinction suggested by Adams between a *family* and an *hereditary* peculiarity. It is certain there are some maladies which are prone to affect many individuals in one family and others which rarely appear in many brothers and sisters, yet are repeated in successive generations. One

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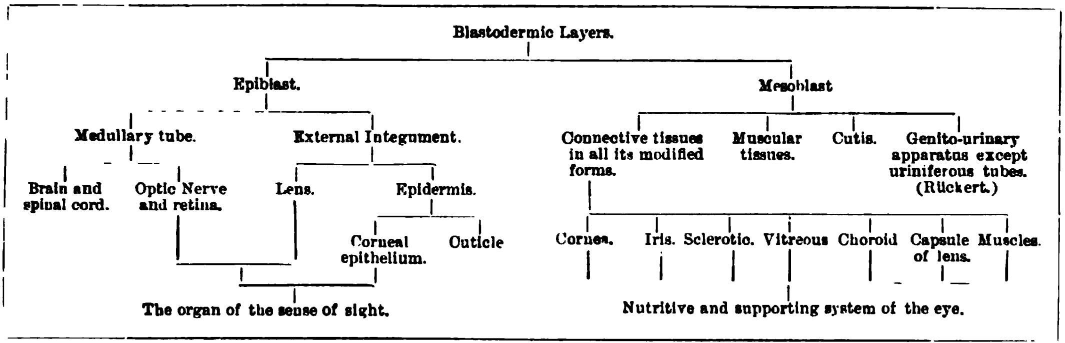
(9) It is now established that the primitive gullet traversed the central nervous system by way of the third cerebral vesicle and infundibulum; and in selachians there is a permanent connection between the hypophysis and the pharyngeal cavity.

(10) Lectures on the Darwinian theory by Arthur Milnes Marshall, page 106.

(11) Relations of the Diseases of the Eye to General Diseases p. 258.



class, as it were, spreads laterally, the other descends vertically. Sir Henry Holland, speaking of diseases not previously recognised in the stock, and yet manifesting a *single family prevalence*, states—"The extent and sudden development of disease in these instances may in itself be taken as proof of new elements being introduced." Facts go to show, however, that it is very rarely that this kind of prevalence is an absolutely new trait in a family; some trace of inheritance is almost always to be found Atavism and prepotency explain many cases of "family disease," others are instances of inheritance intensified. This is shown in the case of ichthyosis, which exhibits a well-marked one generation prevalence, yet there is always some evidence of inheritance if not in the parent at least in a more distant ancestor.

heredity af- —its

When we come to consider the heredity of congenital deafness[12] we find that statistics forcibly illustrate—(a) the tendency of the defect to manifest a single family prevalence; (b) the rarity of deaf-mute parents transmitting their condition to their children; (c) the far more important influence exercised by deafness in collateral relatives in determining the production of deaf offspring than deafness in one or both parents. A passing reference to each of these salient features in the heredity of deaf mutism may not be inappropriate. Many striking instances could be given of the tendency of deaf-mutism to prevail in certain families. Indeed, some of the best examples of *single family prevalence* occur in connection with congenital deafness. A few examples will suffice. Thus of 2,106 pupils admitted into the Hartford (United States) school during a certain period

single ly pre- nce.

593 had one or more deaf-mute brothers and sisters
271 „ two or more „ „ „
116 „ three or more „ „ „
51 „ four or more „ „ „
15 „ five or more „ „ „
11 „ six or more „ „ „

Holland relates that at a school for the deaf and dumb at Manchester there were a group of forty-eight children belonging to seventeen families, that is an average of nearly three deaf-mutes to each family.

Dr. Joseph Adams in noticing the statistics furnished by the Deaf and Dumb Institution of London, says:—"Of 148 scholars upon the foundation of this institution one is of a family where there are five deaf and dumb, one where there are four, eleven where there are three, and nineteen where there are two. Of the scholars fifty-seven are girls and the rest boys, none of them of deaf and dumb parents."

In the Sydney Institution there were during the last year about 100 deaf-mute children. Of these

15 had one deaf-mute brother or sister.
5 had two „ „ „
5 had three „ „ „

There have been at the Institution, although not at present

2 instances where there were five deaf-mute brothers or sisters.
1 instance where there were six deaf-mute brothers or sisters.

(b) The rarity of deaf-mute parents transmitting their condition to their children.

But while deaf-mutism spreads laterally in a family it rarely descends vertically. The transmission by deaf-mute parents of their defect to their children is so rare[13] that many writers,

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(12) The terms "deaf and dumb" tend to sanction and perpetuate the popular error that deafness and dumbness are two distinct defects. Dumbness, as we know, is but a sequence of deafness. Normal children learn to speak by hearing and imitating the sounds of others. The deaf child, not being able to hear such sounds, does not imitate, and therefore remains dumb. Deaf-mutism, then, is simply a congenital deafness, and the same defect may, and does, exist in the lower animals. Acquired deaf-mutism is not hereditary. Persons of sound brain-power, who, in early years acquire deafness, as a result of scarlet fever or other accidental disease of the organ of hearing, and consequent mutism—the ear, and not the brain, being primarily affected—do not transmit their defects to their offspring. A man with disease of the middle ear is no more likely to have deaf children than a man blind from accident or disease is to have children with defective sight.

(13) There are some exceptions scattered through literature to this rule. Thus the Brown family of New Hampshire had deaf mutes in four consecutive generations, and numbered at least 34 such cases. The Hoagland family of Kentucky contained 21 deaf mutes in three consecutive generations, and a group of 10 families residing in the neighbouring villages in Maine, not known to be related, contained 105 deaf mutes.

especially those who first investigated the subject, have denied that it ever occurs, and so late as the year 1881 the Commissioners of the Irish Census state in their report: "As a result of the investigation of the census of 1851-61-71 it appears evident that the question of deafness and dumbness in the parent has no influence in propagating the defect." Sir William Wilde, an eminent aural surgeon, under whose supervision the Irish census of 1871 was conducted, reported that there were in Ireland 115 instances of marriages in which one or both partners were congenitally deaf. In 81 instances one of the partners possessed normal hearing; from 67 such marriages 264 children were born, none of whom were deaf; in the remaining 14 instances there was no issue. There were 13 marriages in which both partners were congenitally deaf. From 12 of these marriages 44 children were born, of whom one was deaf and dumb, another deaf only. Of the remaining 21 instances in which one partner was congenitally deaf, and the other either adventitiously so, or whose hearing condition could not be ascertained, there were seven children, of whom one was a deaf mute. So that of the 315 children resulting from the above-mentioned marriages only two were deaf mutes and one deaf only. Similar testimony could be cited from other countries as to the rarity of deaf-mute children arising from the marriages of deaf mutes.

Thus in the 39th annual report of the asylum in Hartford we find 105 of the deaf had been or are now married. In 41 of these marriages both parties were deaf mutes, in 23 one could hear. Of these 105 there were 31 who had not become parents, but the remaining 72 were parents of 102 children Of these 98 could hear and speak, and four only were deaf mutes. One of the four was the only child of his parents, both of whom were congenitally deaf. Besides the parents the paternal grandfather, a sister of the father, and two sons of this sister were deaf mutes. In the other family, that of three remaining children, the father was adventitiously deaf, and the mother was born deaf and had a deaf-mute brother.

During his long connection with the Sydney Institution for the Deaf and Dumb Mr. Watson met with only one instance in which deaf-mute parents begat deaf-mute children.

In France the same rarity of direct transmission is observed; thus Dr. Ménière, who has written a monograph[14] on the subject, states, "habitually deaf-mutes married to deaf-mutes have children who hear and speak."

It seems strange that while the influence of direct heredity is so little, that of collateral or indirect inheritance should be so important. This is shown by the larger number of deaf mutes who have deaf-mute relatives. Thus out of 5,823 pupils admitted into six American schools up to 1877, 1,719 or 295 in a thousand had one or more deaf-mute relatives. Again, of 162 deaf mutes married to hearing persons 55 who had deaf-mute relatives had 15 deaf children, while of the remaining 101, who had no deaf relatives, only one had a deaf child.

Although deaf-mute parents as a rule do not beget deaf-mute children, yet the number of deaf mutes following such marriages is larger than that of the general population. The latest investigations[15] on the inheritance of deafness go to show that the proportion of deaf marriages resulting in deaf offspring is 9·7 per cent, and the proportion of deaf children born therefrom is 8·6 per cent. Accurate data as to the proportion of deaf children born of ordinary marriages are not easily attainable, but the proportion is probably less than 1·106 per cent. On the other hand, marriages of the deaf are far more likely to result in hearing offspring, the proportion of hearing children being 75 per cent. These results are in accordance with two laws of heredity, viz.:—(a) That a physical anomaly tends to be transmitted to the offspring; (b) that the offspring tends to revert to the normal type.

We may summarize the influence of heredity in the transmission of deaf-mutism as follows:—

(a) Deaf-mutes not having deaf-mute relatives and marrying hearing persons who have not deaf-mute relatives are not likely to have deaf mute children.

(b) Persons who have deaf-mute relatives, whether themselves be deaf-mute or possessed of normal hearing, marrying persons who have deaf-mute relatives, whether they themselves be deaf-mutes or possessed of normal hearing, are likely to have deaf-mute children.

As deaf-mutism sometimes follows on consanguineous marriages we may not inappropriately consider in this place the influence of such marriages on the offspring. A long list of the injurious effects of such unions have been drawn up by some writers, notably by Howe[16], Boudin[17]. Bemis[18], and Mitchell[19]. It has been claimed by the writers referred to that the statistics obtained in asylums of the insane, the idiotic, and the deaf dumb and blind, show that consanguineous marriages are a fruitful source of such defects as idiocy, epilepsy, insanity, deaf-mutism, retinitis pigmentosa, etc.

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[14] Recherches sur l' Origine de la Surdi-Mutité par le Docteur Ménière.

[15] "Marriages of the Deaf in America."

It may be stated generally[20] that while the facts quoted—by those who claim consanguinity as the source of this class of defects—may be admitted, the inferences based on these facts must be challenged. It does not necessarily follow when two phenomena are associated in a large number of cases that they must bear to each other the relation of cause and effect As a matter of fact almost all the reasoning of those writers violate some of Mills' canons of causation ; it is well known that the defects in question may be produced by a variety of causes, but their presence or absence in the cases reported is not noticed.

Another class of writers more especially dwell upon the part played by family intermarriage, on those defects which relate to what, for want of a better term, may be designated the social functions of the individual. Thus Guipon states "consanguinity exerts a depressing effect upon all the vital forces, notably upon reproduction, so that if sterility is not observed in the consanguineous marriages themselves it at least shows itself in their children. It affects the organs of sense, hearing, speech and sight. The genital sense is exalted, but its natural end and aim is thwarted." As regards the fertility of marriages of first cousins, figures obtained from "Burke's Landed Gentry" and the "Peerage" go to prove that the fertility as shown by the number of sons surviving infancy is greater in marriage of first cousins, and where one of the parents was the child of a first-cousin marriage than when the parents were not consanguineous, the number of sons in each of these three classes being respectively 1.95, 1.93, and 1.91.

In disputing the conclusions of both classes of writers, we must not be considered as pleading for consanguineous unions ; our object is rather to call attention to the evil effects of the absence of selection in the propagation of the human species, to note the injurious influence of morbific heredity, whether in those allied or in those alien in blood. When two relatives join in marriage, both of whom possess a similar disease, or a tendency to disease, their offspring are liable to inherit the disease, and with greater intensity. But this is not due to the relationship as such, but to the fact that the morbid strain is, as it were, multiplied by itself, and what may be only latent in the parents as a tendency becomes patent as an actuality in the child. A similar result would follow the union of two persons who were not relatives if they possessed the same defect in common. If consanguinity *per se* were an obstacle to the propagation of healthy children, defective offspring would always be born of related parents. But numerous instances might be cited where normal children arise from consanguineous marriages. Thus Dally[21] reports where two families intermarried for five generations, no marriage being in a more distant degree than first cousins except two, where the contracting parties were second cousins. The total number of descendants, direct and collateral, was about 140. There was not a single case of deaf-mutism or idiocy. Perhaps the most remarkable instance on record of consanguineous marriage is that related by Bourgeois. In this family there were 68 unions of relatives during seven generations, not one of which was sterile, and of the 200 individuals arising from such unions, not one was unhealthy or defective in any way except the children of one of the latest marriages. Sequin gives the results of 10 consanguineous marriages in his own family. One marriage was barren, but the average number of children in each of the ten marriages was over six. There was no instance of deaf-mutism or other defect among all the children. Among simple communities close interbreeding has frequently taken place without any injurious consequences. Notable examples are the isolated villages of Iceland, the Basque and Bas-Breton settlements among the Pyrenees, the Pitcairn

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(16) "Journal of Psychological Medicine and Mental Pathology," July, '58.

(17) On the marriages of consanguinity and deaf-dumbness, "British and Foreign Medico-Chirurgical Review," July, '63.

(18) "Marriages of Consanguinity—Transactions of the American Medical Association," Vol. ii., page 319.

(19) "Memorandum before the Anthropological Society of London." Vol. ii. (1866), page 403.

(20) To criticise in detail the weak points in those tables would lead to a digression. We can only refer to a few.

In Howe's statistics intemperance in the parents figures so largely that it is more probable that the idiocy and other defects should be attributed to it rather than to the consanguinity.

In Bemis' tables the marriage between third cousins are credited with far more numerous untoward results than those of first cousins. This of itself militates against consanguinity being the cause.

In the class of society from which Boudin's figures were obtained many other causes besides consanguinity operate in producing defective offspring. His arguments from the prevalence of deaf-mutisms among the Jews of Berlin is far from convincing, inasmuch as the percentage of deaf-mutism among Jews in Paris is very low.

Lastly, in all the tables the history of the ancestors of the parents is not given, and, therefore, there is nothing to prove that the defective children in the cases reported have not been afflicted by the direct inheritance of their infirmity.

(21) "Anthropological Review," May, '84, page 95

Island[22] settlement, formed by the progeny of four members from the ship "Bounty," and nine native women. Voisin instituted a critical enquiry among the inbred population of 3,300 souls in the Commune of Batz, in Brittany, and could find no instance of idiocy, deaf-mutism, or other defect amongst them. The same authority, after a careful examination of a large number (1,077) of his idiotic, epileptic, and insane patients at the Bicêtre and Salpétrière Hospitals, stated that in no one instance could healthy consanguinity be regarded as a cause of these conditions.

In-and-in breeding of animals.

Man is a physiological animal, and in the manner of his propagation is subject to the same laws as those lower in the scale. We therefore naturally turn to the so-called in-and-in breeding of animals for light on the question of consanguineous unions. Numerous examples could be adduced in which in-and-in breeding has succeeded not only in developing but also in perpetuating a breed for long periods. Thus Beaudowin[23] gives the particulars of a flock of merinos bred in-and-in for twenty-two years without a single cross, and "with perfectly successful results, their being no sign of decreased fertility, and the breed in other respects having been improved" The "Jersey" cattle have been closely inbred for many generations, for a period at least of 160 years. Their home is the small island of Jersey, which is only eleven miles long by six broad. Here, by means of stringent regulations against the importation of cattle, this graceful breed has been kept pure in the strictest sense. Yet for excellence as butter producers, for fertility, beauty and docility it stands unrivalled.

Again many of the most-noted horses on record have been bred from close relationship. Stonehenge[24] says, "When any new breed of animals is first introduced into this country in-and-in breeding can scarcely be avoided, and hence when first the value of the Arab was generally recognised, the breeder of the race-horse of those days could not well avoid having recourse to this plan. Thus we find in the early pages of the stud-book constant instances of very close breeding often carried to such an extent as to become incestuous." And he adds, "The evidence of success in resorting to the practice of in-breeding is too strong to be gainsaid."

(*To be continued.*)

PHARMACY NOTES.

Messrs. Seabury and Johnson, of New York and London, the original manufacturers of india rubber combination medicated and surgical plasters, antiseptic dressings, etc., have established a depot in Sydney, and will carry a varied stock of these well-known goods, which will facilitate the supply of same, and the medical profession can always depend upon having fresh supplies. Some of the leading lines manufactured by this well-known firm are belladonna plasters, guaranteed B.P. strength, in various sizes, porous or plain, spread on cotton cloth and red felt; breast kidney, mustard, isinglass, and medicated plasters. Mead's rubber adhesive plaster on 10 yard spools from ¼ to 3 inches wide. This plaster is perfectly pliable, self-adhesive, non-irritating and antiseptic—it is also put up in 1 and 5 yard rolls, 7 and 12 inches wide, porous or plain. Seabury's antiseptic standard gauzes dry or moist, are packed in 1 and 5 yard aseptic air-tight containers, and folded in such manner that part of the gauze may be easily withdrawn and cut off without disturbing the remainder in the package. The gauzes are prepared with absorbent gauze manufactured expressly for the purpose, and every precaution is taken to ensure aseptic conditions throughout the process of manufacture and putting-up, and are thoroughly impregnated with the percentage of medication as stated upon the label. Moist gauzes are also supplied in screw cap glass jars under the name of Mead's moist gauzes.

Seabury's absorbent medicated cottons are made from selected long staple and carefully carded. The "B.W.B." elastic woven bandage at once commends itself for its porosity and absorbent qualities, and is superior to an elastic stocking for varicose veins. In applying this bandage it is not necessary to fold it over, as it follows itself around any part of the anatomy. "Plaster of Paris" bandages, in tins, various widths, are also put up by this firm, as also are transparent oiled silk, ligatures, drainage tubes, etc., etc.

Seabury's sulphur candles, large size in tins, small in porous containers, afford a very safe means of burning sulphur and thus destroying germs after infectious diseases, in vacated apartments, hospital wards, etc., etc., and are authorised by the Boards of Health at home and abroad.

Sanitary cuspidores (Seabury's), consist of a waterproof container inserted and retained in a metal frame.

The above preparations are stocked by, all the wholesale druggists in Australasia, and the sole agents are Messrs. Fassett and Johnson, 7 Barrack Street, Sydney.

The Extermination of Rats.—Recent experiments in London by means of Sulphur Dioxide.—This gas seems to have the property of attracting the rats from their holes, and as soon as they breathe the fumes they become suffocated. At the same time the gas has no injurious effect on the decorations of the ship.—*The Sanitary Record.*

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(22) The latest intelligence concerning the Pitcairn Islanders, shows that the forecast of the doctor of the "Royalist," regarding "degeneration" and "devolution," is totally unfounded. On March 31st last, Commander Knowling, of His Majesty's ship, "Icarus," sent from Honolulu a report to the Admiralty, of a visit he had just paid to this interesting Island. From this report we learn that disease appears to be almost unknown. The oldest man on the Island, a grand-son of the Master's mate on the "Bounty," is aged 83; two other men are over 75, and the oldest woman is 72. None of these old people suffer from anything beyond the weakness of old age, and all seem contented and happy. As Captain Knowling says, "men, women and children seem, without exception, in robust health, and full of vigour; the day's work is such as would astonish many a British labourer, as it astonished, on more than one occasion, myself and the ship's company." See an interesting leading article on the "Pitcairn Islanders," in the *Sydney Morning Herald* October 12th last.

(23) "Comptes Rendus," Aug. 5, 1862.

(24) Stonehenge on the Horse, pages 140 and 141.

PROCEEDINGS OF BRANCHES.

NEW SOUTH WALES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

A special general meeting of the Branch was held at the Royal Society's Room on Friday evening, 20th September, 1901. Present: Dr. Foreman (President) in the chair; Drs. Beeston, Hankins, Knaggs, Crago, Rennie, Taylor Young, Muskett, McDonagh, G. R. Hall, Kater, Wilkinson, Cleland, Fiaschi, Clubbe, J. W. Gormley, Barrington, Arthur, P. S. Jones, Litchfield, Roth, Mills, S. H. Hughes, Agnes Bennett, Furnival, Sydney Jones, Gledden, Maclennan, Todd, Walker-Smith, Worrall, Flynn, Megginson, Sinclair Gillies, Quaife, L. Herschel Harris, Cosh, Read, Newmarch, Bennet, Brady, Maitland, Harold Browne, Abbott, Blackall, Palmer, W. E. Warren, Binney, Lucy Gullett, Harriet Biffin, F. W. Hall, Morgan Martin, John Harris, Kirkland, Kerr, and others.

Visitors: Drs. Hegerton and Blue.

The circular convening the meeting was read.

"British Medical Association, New South Wales Branch.—An Extraordinary Meeting of the Branch will be held at the rooms of the Royal Society, Elizabeth Street, on Friday, 20th September, at 8·15 p.m. Business:—Dr. J. L. Beeston will move for the alteration of No. 27 of the Articles of Association: 'The Editor of the *Gazette* shall be elected by a ballot of all the members of the Association, &c., &c., the ballot to be taken in the same manner as in the election of officers, as provided in Article 39.' A counter resolution will be moved: 'That the appointment of Editor be by the Council.' N.B.—The Articles of Association can only be altered by special resolution requiring a majority of at least three-fourths, and confirmation by a bare majority at a subsequent meeting, held not less than fourteen days and not more than a month from the date of the original meeting. Geo. T. Hankins, Hon. Secretary. 10th September, 1901."

The President (Dr. Foreman) called upon Dr. Beeston to move his resolution.

Dr. **Beeston** said that he came there to-night to speak on behalf of those members resident in the country, and he held proxies to this effect from all parts of the State, and almost every proxy he held had been accompanied by a letter expressing the satisfaction of the sender at the action which was being taken. In the Newcastle district the feeling amongst the members on the management of the Association was very keen, and the universal desire was that this motion would be carried. He considered that those members living outside the metropolitan area derived very little benefit from being members of the Association, beyond receiving *The British Medical Journal* and the *Gazette*. If they desired to attend the meetings they were to some extent penalized to the extent of train fares and hotel expenses, besides the loss of time from their practices. Therefore he thought that these members were deserving of some consideration at the hands of their metropolitan confreres, and ought to be allowed a voice in the management of the Branch. Regarding the election of Editor of the *Gazette* being placed in the hands of the Council, he said that Sydney was always looked upon as the most notoriously "cliquey" place on this planet. There was the Scotch party, the Irish brigade, and those hailing from the University. Now all these different sections were pulling one against the other, so that he thought the election should be taken out of this atmosphere of cliquism and given into the hands of the members as a whole. It had been put forward by the Council that they were in the position of the directors of a company, and that the members stood as the shareholders. Dr. Beeston said that with this view he begged to differ. In an ordinary company the shareholders as a rule knew nothing of the affairs, and relied altogether on the directors, but in the case of the readers of the *Gazette*, he took it that they were quite as competent to judge of the quality of the editorial matter as the Council, and that if they found it falling off they could, by an adverse vote, change the occupant of the editorial chair. He hoped that his remarks would be taken in good part. The country members took a lively interest in the Association's affairs, and would continue together for its well-being. At the same time, there was no desire to raise any dissension in the ranks of the profession. All they desired was to have a voice in the management, and not to be overridden by the Sydney members. He therefore begged to move the adoption of the resolution standing in his name.

Dr. **Gormley** seconded the resolution.

Mr. **Hankins** said he had intended moving the second resolution on the paper in the form of an amendment, but he thought it would be more satisfactory to Dr. Beeston and the members he represented if the motion were put to the meeting in its original form without amendment. If it were carried he would cordially congratulate Dr. Beeston on his success, and loyally abide by the decision of the Branch. If it were lost, then he (Mr. Hankins) would move the second resolution, in the hope that if it were carried by a fair majority Dr. Beeston would see his way to throw the weight of his proxies into the scale, so as to secure the three-fourths majority required by the Companies Act, which would otherwise be unattainable.

Dr. **Blackall**, of Queanbeyan, said that the business should be taken as it appeared upon the business paper. Dr. Beeston's resolution appeared first, and then the amendment.

The **President** pointed out that the second resolution was not to be moved as an amendment but as a counter or alternative resolution.

The resolution was then put to the meeting and negatived—

Personal votes for 11, proxies 45, total 56.
„ against 30, „ 64, „ 94.

The **President** declared the motion lost.

Mr. **Hankins** then proposed "That in Article 27 of the Articles of Association, line 14, the words 'designated or elected by a general meeting of the Association' be omitted, and the words 'appointed by the Council' substituted." Everyone agreed that the method of electing the Editor according to the Articles was a bad one. Dr. Beeston's proposal had the merit of placing the Sydney and country members on an equal footing, but it was unjust to the Council. The Council was saddled with the responsibility of dispensing with the services of an Editor if occasion required, but there was nothing to prevent the same individual being re-elected by the Branch, the members of which would be in ignorance as to the reasons necessitating the change. The result might be a deadlock between Council and Editor. If the Council were to be responsible for the *Gazette*, and has power to dispense with the services of the Editor, settle what remuneration he was to receive, and determine his duties, powers and privileges, it surely follows that the appointment also should be by the Council.

Dr. **TODD** seconded the resolution. He said that after the circular which had been sent to the members, setting out the reasons why the Council deemed it right that the appointment of the Editor should be in their hands, and after what had been said by Mr. Hankins in moving the resolution, the proposed alteration of the Articles ought to commend itself to the business instincts of the members. It was the invariable practice, where a newspaper was the property of a company, that all such appointments were in the hands of the directors. So far as the *Gazette* was concerned, the Association was a newspaper proprietary. There was no other means of making the management efficient than by giving the Council, who had all the duties of a directorate, the responsibility of appointing a competent Editor. If there were any reasons, at the time the Articles relating to the subject were originally framed, for the avoiding of this responsibility by the Council, they were no longer present; and it was in the interest of good management and a proper distribution of responsibility, that he favoured the proposed alteration of the Articles.

Dr. **SYDNEY JONES** said he thought the alteration of the 27th Article of Association proposed by the Council a highly desirable one and he should give it his support. He was of opinion that if Dr. Beeston's resolution had been carried it would have become necessary not only to amend Article 39, but also Article 59 which provides that the Council "shall direct the publications of the Association," and this he thought the Council could not do efficiently unless entire harmony existed between that body and the Editor, a state of things which might not be if the Editor was elected by the votes of the whole body of members. He saw no danger of disfranchising the members by making the appointment of Editor in the Council, as that body really represented the members of the Branch in the same way as the members of the Legislative Assembly represented the electors of the State. If the Council, by the appointment of an Editor objectionable to the majority, or in any other way, forfeit the confidence of the members, the latter have their remedy; they can turn out the Council and elect a new one in its place at the next annual meeting.

Dr. **MILLS** had much pleasure in supporting the motion moved by Mr. Hankins. It seemed to him that inasmuch as the Council had the power to dismiss the Editor, they should also have the power to appoint one. In a question such as that before the meeting they should endeavour to eliminate the personal element altogether. The late Editor had done much in the past both for the journal and the Association, and had probably more friends throughout the profession in Australia than any other of its members, but our friendship for him should not influence our conduct in dealing with an abstract matter such as that now before the meeting. Dr. Beeston had complained that country members derived little advantage from the Association, but he (the speaker) contended that practitioners in the country, as far as the journal was concerned, had equal advantages with the city members. He was afraid that Dr. Beeston over-estimated the benefits to be derived from attending the meetings of the Branch, but he missed, at any rate, those petty bickerings which Dr. Beeston had alluded to. He thought that country practitioners made use of the journal for the publication of their articles, and he knew that Dr. Beeston himself took advantage of the journal for that purpose. Should Mr. Hankins' resolution be carried, and he believed it would be, the country members of the Branch, who had the same power as city members in electing the Council, would have an equal voice in electing the Editor of the journal. We all admire the loyalty shewn by Dr. Beeston to his old friend the late Editor, who had done such excellent work for the Association in the past, but while he remained loyal to his friend he must remember that it was demanded of him to be equally loyal to the Association.

Dr. **BEESTON** said the question was not a personal one with him, but he was well pleased with the management of the *Gazette* in the past. He intended to oppose the resolution.

The **PRESIDENT** then put the motion to the meeting. The result of the voting was as follows:—

For the motion, personal votes 36, proxies 64, total 100.
Against „ „ 3, „ 45, „ 48.

The voting in favour of the motion being over two to one, Dr. Beeston handed over his proxies in order to secure the three-fourths majority required.

For the motion, personal votes 36, proxies 109, total 145.
Against „ „ 3, „ nil, „ 3.

The **PRESIDENT** then declared the resolution carried by the requisite majority.

Mr. **HANKINS** moved a vote of thanks to Dr. Beeston. Carried by acclamation.

Article of Association as amended: "27. There shall be the following officers of the Association viz—a President Vice-President an Hon. Treasurer an Hon. Secretary. The President and Vice-President shall respectively be designated or elected by the members or the Association in manner hereinafter mentioned and shall have and enjoy such duties powers and privileges as are provided by these Articles and such other duties powers and privileges as shall be determined from time to time by the Association in General Meeting. The Hon. Treasurer and Hon. Secretary shall respectively be designated or elected by the Council from the members thereof and shall have and enjoy such duties powers and privileges as are provided by these Articles and such other duties powers and privileges as shall be determined from time to time by the Council. The Editor of the Journal shall be appointed by the Council and hold office for such period and have and enjoy such duties powers and privileges and receive such emoluments as shall be determined from time to time by the Council."

THE regular monthly meeting of the Branch was held at the Royal Society's room, on Friday, 27th September, 1901, at 8.15 o'clock, Dr. Foreman (President), in the chair. There were also present Drs. Cleland, Millard, Pockley, Barrington, Hankins, R. H. Jones, Rennie, Mary Booth, Clubbe, Wilkinson, Worrall, Maitland, Bowker, Sinclair Gillies, Gordon Craig, Litchfield Flynn, West, W. E. Warren, Goode, Sydney Jones, W. S. McKay, S. H. Hughes, Clarence Read, Marano, Fiaschi, Gill, Taylor Young, Arthur, Levy, Doak, MacCulloch, Brady, Geo. Armstrong, Herschel Harris, Kirkland, Reiach, Cohen, Binney, Cosh, Shand, Kater, Bennet, Burfitt, Crago, Hinder, Walker-Smith, Dixson, Agnes Bennett, Harriet Biffin, Grace Boelke, Sandes, Forster, Brennan, Murray Will, Tilley, Maclennan, P. R. Boelke.

The minutes of the previous meeting were read and confirmed.

The **PRESIDENT** announced the election of Drs. Nolan and W. J. S. McKay, and the nomination of Drs. Ayres, Morton and Fox.

Dr. **WILKINSON** said he had a personal explanation to make to the Branch.

The **President** said the ordinary business of the meeting must proceed, and Dr. Wilkinson would have an opportunity later on.

Dr. **Pockley** read "Some Notes on a Case of Primary Neoplasm of Optic Nerve Sheath," removed by Krönlein's operation, with preservation of the eye and good vision, and exhibited the patient. (See page 411.)

Dr. S. H. **Hughes** said :—Dr. Pockley was to be most highly congratulated on the success of his very brilliant case and more particularly so when one considered that until recently all eyes afflicted in this manner were enucleated. Here, however, the patient not only had his eye, which looked perfectly normal, but excellent vision as well, viz., $\frac{6}{12}$. Before the removal of the tumour, optic neuritis was present and even if the growth was benign it was reasonable to suppose that the patient would have ultimately lost his sight from consecutive atrophy. This case he considered was one of the greatest triumphs in surgery. Dr. Pockley was also to be congratulated on the fact that this was the first recorded case in either Great Britain or Australia.

Dr. **Burfitt** read "Some Notes on a Case of Intussusception." (See page 429.)

Dr. **Maitland** said he wished to thank Dr. Burfitt for the paper he had read. The particular point of interest about the case was the fact that there was complete obstruction, hæmorrhage from the bowels, then a normal motion. He remembered seeing a case of Dr. Bowker's which much resembled this case. There was an ileo-cæcali ntussusception, the most common variety. There was in this case, first diarrhœa, then a profuse discharge of blood by the bowel, then two normal motions were passed. This case was operated upon by Dr. Bowker, and made a good recovery. The child was three months old. One lesson to be learnt, and it was a lesson often forgotten, and that was that there might be complete obstruction, and yet there might be evacuation of the bowel, that was of the contents below the obstruction. This fact, Mr. Treves pointed out, was not uncommon before death, the explanation being that the reflex nerve action, which causes a paralysis of the gut below the obstruction was modified by impending death, and there was an emptying of the distal gut segment, possibly this might be an explanation of the fact mentioned in Dr. Burfitt's case.

Dr. **Hinder** said : While he was not at variance with Dr. Maitland as to the cause of the passage of fæces in cases of intussusception just before death, he should like to state that two or three motions might be got rid of by enemata after the obstruction was complete, and that this very deceptive symptom usually arose when the obstruction was high up in the intestine. These cases were cases of true obstruction, and would die of the toxæmia which accompanies and was caused by the obstruction. If the obstruction was very high up there was persistent vomiting of mucoid material without odour, and distention most marked in the upper part of the abdomen. The condition was a dangerous one, because action of the bowels after enemata on two or three occasions was so apt to lull the suspicions of the medical attendant, yet a moment's thought will make it patent that there was no obvious reason why such a state of affairs should not obtain.

Dr. **Worrall** read "Some Notes on Spontaneous Rupture of Uterus," successfully treated by abdominal section. (See page 414.)

Mr. **Barrington** congratulated Dr. Worrall on his case on account of its extreme rarity, the fortunate circumstance that the condition of the patient was such as to permit of her removal to the advantages of hospital environment, and above all on its extremely successful issue. When the fœtus had, as in the case recorded, escaped entirely from the uterine into the abdominal cavity, it implied so extensive a rupture that he held the only feasible treatment was by abdominal section, the subsequent alternative procedures being suture of the rent or supra-vaginal hysterectomy. He doubted if so extensive a tear, with probably septic uterine walls, could be efficiently sutured and maintained that the most rapid and safest operation was that adopted by Dr. Worrall, for by it alone could the hæmorrhage be stopped, the cœlom efficiently cleansed, and no septic focus left within it. Reference had been made to the discussion of the London Obstetrical Society on rupture of the uterus, but he thought few would advocate gauze packing for so extensive a tear as the one described, though it might be efficacious when the rent was small, and vaginal hysterectomy, commended by one of the speakers in this discussion, would have probably proved futile owing to the ovarian artery of one side being torn across. He questioned whether the advice of some text-books was sound in advocating waiting for the patient to rally from shock before resorting to operation, for when the rupture was complete and extensive the shock largely depended on hæmorrhage, deepened with its continuance, and the patient, instead of reacting with delay, was prone to enter into a direr pass. As in cases of ruptured ectopic gestation with diffuse hæmorrhage, the rule should be to operate without delay, stop the hæmorrhage, and copiously irrigate the abdomen, with simultaneous and subsequent infusion of a large amount of normal saline solution, all of which were combative of shock.

Dr. **Stewart McKay** said that the operation that Dr. Worrall had performed was the correct one in this particular instance. But they could not expect men living in the country districts to attempt such an operation. It should, however, be remembered that all tears did not take place in the lower uterine segment ; many ruptures occurred towards the fundus, and if any such case were encountered there was no reason why it should not be saved even by men who were not accustomed to big abdominal operations. All that was necessary was to open the abdomen, withdraw the womb, transfix it with hat-pins or knitting-needles, encircle it with a piece of rubber tubing and amputate. It was far better to fail in attempting such an operation than to see the patient die without some effort being made to save her. It should also be borne in mind that rupture of the uterus took place in some cases during pregnancy, long before labour had set in ; and an instance had been recorded where rupture took place after replacing a retroflexed gravid womb, the woman being only three months pregnant.

Dr. **Foreman**, the President, said he had met with three cases of rupture of the uterus, one in which the patient was admitted to Prince Alfred Hospital, after a long journey by rail. arriving at the institution in a moribund condition. The rupture was on the left side, about half-way up the uterus; he operated as Dr. Worrall had done, opened the abdomen, inserted a drainage tube but thought he did not wash out the cavity. The patient died. A case had come under his care illustrating the danger of forcible dilation. The uterus had been dilated to remove a four months' fœtus with the result that the uterus was ruptured. In that case he thought it better to clear the uterine cavity. and packed the peritoneal cavity with gauze. The patient recovered. Each case must be treated on its own merits. He would not advocate the removal of the uterus in all cases, rather endeavour to preserve that organ where possible. With reference to Dr. McKay's remark as to the rupture occuring in the early stage of pregnancy, he would think such occurrences were hardly possible at a period of say three months.

Dr. **WORRALL** did not intend to convey the impression that the uterus should be removed in every case. He was quite in accordance with Dr. McKay with regard to instances where the rupture was in the upper part of the uterus.

The **PRESIDENT** then called upon Dr. Wilkinson to move the resolution standing in his name.

4. Dr. **WILKINSON** moved, "That the article in the *Australasian Medical Gazette* of the date of August 20th, 1901, upon the Climatic Treatment of Pulmonary Consumption was a breach of privilege."

Dr. **WILKINSON** said that it seemed to him he was the sad and suffering victim to duty. The matter to which he wished, at the commencement of the meeting, to direct attention, was a personal one. He now desired to question the right of the Council and the President to enforce their ruling as to the conducting the business of these meetings of the Association. At an earlier period that evening he had intended to make a personal explanation, and in deliberative assemblies such explanations always received attention at once, he, however, had been ruled out of order. He wished to apologise for having attacked the wrong person when censuring the management of the *Australasian Medical Gazette* at the last meeting. On reading the letter sent him by the acting editor, he quite gathered from its tone that the writer was the author of the Editorial complained of, and he now wished to apologise for any expressions he made use of on that occasion which may have hurt the feelings of the acting editor. In discussions that took place at meetings of the Association members could reply to statements there made, and were at liberty to agree or disagree with opinions voiced at such gatherings, but with reference to an editorial published in the *Gazette* the case was otherwise; such an article being unsigned was therefore not open to discussion in the same manner as statements made at meetings of the Association. He regarded the matter in question to be distinctly a breach of privilege.

The **PRESIDENT** suggested that Dr. Wilkinson should explain what the term "privilege" really meant.

Dr. **WILKINSON** proceeded to say that the matter he brought up at the last meeting was one particularly to be considered by the publishers of the *Gazette*. Only in a round about way had he been able to discover that the article complained of had come from a source he had not suspected. He wished it to be understood that the whole affair would be allowed to drop. He had been the victim on this occasion, but who could say whom the next person would be. He held that as a deliberative body they had their privileges as other assemblies, and such rules were binding as to the conduct of the business of their meetings whether such rules were written or unwritten.

The **PRESIDENT** (Dr. Foreman) pointed out that before any voting took place he would like to put the matter clearly before the meeting. Privilege, as understood in a Parliamentary sense, was quite distinct from the term as applicable to meetings of the Branch. In Parliament a member could speak in the House against the Crown, or on any subject, and not be amenable to legal proceedings in consequence; to suppose that their meetings could be regulated in the same way would be absurd. The rules of debate always extended to the Chairman some latitude in the management of the business, and it was customary for him to be informed prior to the meeting of any matter likely to interrupt the business fixed for the meeting. Dr. Wilkinson had not communicated with him with regard to the subject he had sought to bring forward at the commencement of the meeting that night. He (the speaker) had ruled the matter out of order, and he believed he had the confidence and concurrence of the members in so doing.

The resolution was not seconded.

The Acting-Editor (Dr. **CRAGO**) accepted Dr. Wilkinson's apology.

Dr. W. J. S. **MCKAY** exhibited a tumour weighing 27 pounds—successfully removed by the interscapulo-thoracic amputation.

Dr. J. B. **CLELAND** exhibited some films showing the diplococcus intracellularis meningitidi of Weichselbaum. About two ounces of clear, watery fluid, depositing a flocculent precipitate of pus cells, was obtained by lumbar puncture from the vertebral canal of a child suffering from epidemic cerebro-spinal meningitis, and from this sediment the above were obtained. They show numerous of diplococci, many of them within the pus cells, a few of which contain as many as eight pairs. Some of the cocci appear swollen and degenerated. Around other free ones, a faint capsule, much less evident than that of the diplococcus lanceolatus, may at times be seen.

THE Council met at the editor's room on Tuesday evening, September 17th, 1901, at 8.30 o'clock. Present: Drs. Foreman, Rennie, Crago, Todd, Quaife, Jamieson, Brady, Hankins, Knaggs, and Hinder.

The minutes of the previous meeting were read and confirmed.

Letter was read from Dr. Mugliston of North Sydney, asking for advice. The matter was left in the hands of the hon. secretary.

Letter was read from the medical practitioners of Inverell enclosing the proposed new agreement of the lodges. Resolved that the correspondence be published in the *Australasian Medical Gazette*, and the medical officers of the lodges at Inverell be advised to start a society on the lines of the Sydney and Suburban Medical Society.

Letters from Dr. Wilkinson were read stating that he intended to move a certain resolution of privilege at the next meeting of the Branch—also notice of motion with regard to the appointment of an editorial staff. Resolved that the resolution be placed in its order on the business paper.

Dr. **CRAGO** brought the question of publishing Dr. Wilkinson's speech under the notice of the Council. Resolved that the speech be published as sent in by Dr. Wilkinson.

Accounts passed: W. Pepperday, £3 16s., stamps, £3 0s. 11d.

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SOUTH AUSTRALIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

THE usual monthly meeting was held at the University on 26th September, 1901.

Present: Drs. Todd (President), Poulton, Gregerson, Evans, Cudmore, A. A. Hamilton, Cavenagh-Mainwaring, Robertson, Marten, Swift, Lendon, J. A. G. Hamilton, Cleland, Roseby, Lawrence, J. C. Verco, W. Hayward, T. K. Hamilton, Good, Brummitt, Anstey Giles, W. A. Verco, Scott, Plummer, F. Magarey, Cooper, Gault, and Gunson (Hon. Sec.) Visitor: Dr. Weld.

EXHIBITS.

Dr. **POULTON** showed:

A patient who had been operated on a year ago for tubercular peritonitis.

Dr. **ANSTEY GILES** showed:

A patient whose patella he had wired for transverse fracture.

Dr. T. K. **HAMILTON** showed:

No. 1: *Bilateral Abductor Paralysis in a Syphilitic Subject.*—J.E., aged 51. History of having had a chancre when twenty years of age. Several patches of cicatrical tissue about the head and neck, evidently the result of deep ulceration some years ago. When first seen on August 20th, there was extensive ulceration of the velum, which had destroyed the uvula, and a large perforation of the septal cartilage. There was considerable inspiratory dyspnœa, much increased by the slightest exertion, and accompanied by stridor worse when asleep; expiration was comparatively easy, and the voice was almost normal. The cords were found nearly approximated except for a small eliptical aperture between their central portions, measuring about 3 m.m. at its widest part; on forced expiration, accompanied by a hoarse cough, the opening between the cords became slightly larger, which seemed to help him to get air in during each inspiration succeeding the cough. Large doses of potassii. iodidi. internally, and sublimated calomel to the ulcerated area on the soft palate, was a treatment adopted, and under this his breathing became somewhat easier for two or three days, but the dyspnœa then increased so that tracheotomy became necessary to keep him alive, and was performed on the 24th inst. Since then his general condition has markedly improved. He has gained several pounds in weight, and the ulceration of the velum is rapidly healing. The question arises, what is the abductor paralysis due to? Is it central or peripheral in its origin? Careful examination failed to reveal any other evidences of central lesion. There are no other paralyses to be found to point to a central origin, except a slight dilatation of the left pupil be one. That the ulceration of the soft palate and the abductor paralysis had a common origin in the syphilitic contamination of the patient seems to be a fair conclusion to come to, and the latter symptom is most probably due to pressure of a gumma on the nerves going to supply the muscles whose functions are in abeyance, viz., the crico-arytenoidei postici - or perhaps to a gummatous deposit in the substance of these muscles themselves. Whatever the actual condition affecting the muscles be, no improvement in their action has as yet followed the exhibition of antisyphilitic remedies, though the pharynx has improved so much. The prospects of recovery from the paralysis is, from the history of such cases on record, not good, and the reason assigned for this is that the pathological changes which cause the paralysis being of a degenerative character, are prone to lead to permanent impairment and loss of functional activity of the muscles affected.

Three Cases of Contraction of the Orbit and Restoration of the Fornix Conjunctivæ for the Retention of a Prothesis by Weeks' Operation: –

No. 1. J.H., male, aged aged 20 years. Eyeball enucleated nineteen years ago, and lower fornix now so shallow that no prothesis can be retained. Weeks' operation done on July 16th. A leaden shell has been worn up to three days ago, and now a No. 2 Snellen's prothesis, somewhat smaller than the other eye, is well retained.

No. 2. E.G., female, aged 16. Globe eviscerated for panophthalmia coming on in an eyeball with staphylomatous cornea, the result of croupous conjunctivitis some eight years ago, which had left the lower bulbar and palpebral conjunctiva in a zerotic and puckered condition. Weeks' operation was performed on August 30th, and a No. 2 Snellen was fitted three days ago, with the satisfactory results now seen.

No. 3. A.L., female, aged 16 years. Ten years ago I eviscerated the globe for very large staphyloma of the cornea, and implanted a glass sphere in the sclerotic by Mules' method. This sphere has remained in, and now the orbit is well filled, but the lower fornix was too shallow to retain a prothesis. Weeks' operation was performed only seventeen days ago, and she is still wearing a leaden shell which will, I anticipate, be replaced soon by a full-sized Snellen's artificial eye.

Cases Nos. 1 and 3 afford illustrations of points of special interest in connection with removal of the globe or its contents in early life. In No. 1, you will observe, enucleation was performed when the child was twelve months old, and in No. 3 Mules' operation was performed when the child was six years of age. A detailed examination of the orbit and its contents, and careful measurements in each case, show the striking difference in the two cases, which, in the light of recent research, is most interesting and instructive. Thomson, of Glasgow, in a paper published in *The Lancet* of November 17th, 1900, has given the result of experimental enucleation of one eye in young animals, undertaken in order to determine whether removal of an eye in early life resulted in faulty development of the orbit. The orbits were carefully measured, and the results found to be a very marked difference between the normal and the anophthalmic side. The difference was very uniformly distributed over the length, height, and depth of the orbit, and amounted to something like 10 per cent. in the macerated skull, and from 10 to 15 per cent. in the wet condition. It thus appeared that the greater fault was in the development of the bones, and the lesser in that of the soft tissues. In No. 1. the measurements of the anopthalmic side show a distinct contraction of the bony outlines of the orbit, as well as a deficiency of the orbital soft parts. On the anophthalmic side the commissure of the lids measures 2·50 c.m. as against 3·00 c.m. on the other side, and the vertical and horizontal diameters of the orbit on the former side are 2·75 and 3.25 c.m. respectively, as against 3·00 and 3.50 c.m. on the latter. There is also the usual depressed condition of the upper lid generally seen in eyes removed early in life. In No. 3, on the other hand, a marked and pleasing contrast is observed. The orbit is well filled out, there is no sulcus above the upper lid; the measurement of the commissure of the lids of each eye is 2·75 c.m., and the vertical and horizontal diameters of the orbit are 2·50 and 3·00 c.m. respectively on each side. It would seem that this result is due to the fact that, as the attachment of the muscles to the eyeball remains, the blood supply consequent on the functions of the orbit being thus exercised is kept up to the normal standard, and if this be so, probably an implantation in Tenon's capsule by the newer methods as suggested by Barrett and Morton—in which correct muscle attachment is provided for—would answer somewhat the same purpose. Of course, I admit one solitary case does not prove anything, and I therefore hesitate to draw any general conclusions therefrom. I submit, however, that the contrast of these two cases, taken side by side, is sufficiently suggestive to make the matter worth drawing attention to as affording material for future observation on the important question of the best way of dealing with eyes which require removal while the orbit is still as yet undeveloped.

*Two Cases of Gersuny's Subcutaneous Paraffin and Vaseline Protheses of the Nose.**

1. J.H., female, aged 16 years. The bridge of the nose was very much sunken, presenting the usual "saddle-back" nose of inherited syphilis due to the disease affecting the lateral arches. The whole of the septum has also ulcerated away, and there is now nothing left but the columna to support the tip. A mixture of sterilized paraffin and vaseline was injected two weeks ago, about one and a half fluid drachms in all, and the result is as now seen everything to be desired, the nose having entirely lost its sunken appearance.

No. 2. A.L., female, aged 16 years. Born with a sunken bridge. A similar procedure as in Case No. 1 was adopted with equally good results. These are two of five such cases which I have operated on lately, one of which was sinking of the bridge fullowing septal abscess due to traumatism, and all of them equally satisfactory in the results obtained. The possibilities of such treatment in deformities of the nose and of other parts of the body are, as Gersuny points out, very great, and will enable the surgeon to restore various parts of the body to their normal shape and appearance in a way hitherto unknown or undreamt of. Gersuny records thirty cases thus treated by subcutaneous injection. Two years have elapsed since his first experiments, demonstrating that the protheses can be considered permanent.

PATHOLOGICAL SPECIMENS.

Pathological specimens were shown by Drs. J. C. Verco, Marten, and J. A. G. Hamilton.

Minutes of last meeting were taken as read and signed.

The adjourned discussion on the papers read at last meeting was then called on, and many of the members present took part in it.

Dr. W. T. **HAYWARD** said:—The papers read by Drs. Marten and Verco at our last meeting were interesting, instructive, and suggestive. That of Dr. Marten brought vividly upon us the fact that cases of tubercular peritonitis were very amenable to surgical treatment, and we are, moreover, indebted to him for bringing under our notice the medical treatment suggested by Dr. Burney Yeo, a method which, I think, most of us will be inclined to try before we seek the aid of surgery. The interpolated case of Miss A., when there was effusion into more than one cavity without evidence of any definite specific cause, is doubly interesting when viewed in connection with Dr. Verco's paper. Combined they view the question as to whether we are justified in coining a new term to describe a certain group of cases. I am afraid by so doing we run the risk of elevating this grouping into a new disease, and induce a tendency to be satisfied that a case of a double serous effusion without any obvious cause, is one of polyorromenitis. As has been pointed out, multiple serous effusions occur as the result of many diseases; it may also result from two diseases running concurrently. When this condition is brought about by rheumatism, heart disease, or disease of the kidneys, the etiology is simple. It is in these cases in which there is no evidence of predisposing causes that cause trouble such as two of these related by Dr. Verco. The question arises are all these cases due to tubercle, or is it possible that some are due to some unknown cause. We know for certain that tubercle will cause the condition. The remaining cases in which no cause can be ascribed must be very few. Bearing in mind that in some of these cases the subsequent history has shown that although there was no evidence of tubercle having been present during life, yet *post-mortem* examinations have shown that tubercle was the cause. Bearing in mind also that tubercular peritonitis and tubercular pleurisy can both be cured by medical treatment, I think we are justified in drawing the conclusion that these residual cases are caused by tubercle, and if the *onus probandi* should be thrown on anyone it should be on those who consider that polyorromenitis may be present without any known cause. I have at present under my care, a patient who is suffering from ascites, and severe effusion into the left pleura. She is 62 years aof ge of steady habits, and has had no previous illness of any importance. She consulted me a few months ago, owing to increasing weakness, shortness of breath, loss of flesh, together with enlargement of the abdomen. On examination, I found a large irregular tumour in the lower part of the abdomen, with evidence of fluid in the peritoneal cavity, there was also fluid in the right pleura. There was a history of metorrhagia for the past 10 or 12 years. There was no evidence of tubercle in the lungs, and the heart and kidneys were normal. The symptoms that brought her to me had only arisen after an attack of influenza. From her appearance and symptoms I feared that the effusions were due to a malignant growth, though there was no positive evidence that the uterine tumour was other than sub-peritoneal fibroids, but under treatment her general condition has improved so much that I am inclined to think that the ascites may simply be due to the fibroids, and the pleuritic effusion an independent affection, though I have serious doubts as to whether tubercle may not be the cause of both.

Dr. **LENDON** said that in Dr. Marten's and in Dr. J. C. Verco's papers, two separate subjects had been touched upon, viz., tubercular peritonitis, and a multiple affection of the serous membranes. With regard to the former, he could corroborate what had been said. Twenty years ago he saw what was apparently an ovarian cyst prove at the operation to be a loculated tubercular peritonitis; the bad prognosis thereupon given was stultified by the complete recovery of the patient. Six weeks ago he opened the upper abdomen of a young woman on account of urgent symptoms of 48 hours' duration—the diagnosis was indeterminate, but the operation imperative—he found a tubercle-studded omentum, a lump in the situation of the head of the pancreas, stones in the gall-bladder, and fluid in the pelvis. This fluid was drained for 48 hours by a supra-pubic incision, and the patient recovered without a bad symptom. A fortnight ago he saw, in consultation with Dr. Corbin, a girl of 18 with lumps in her abdomen, which they were both disposed to regard as evidence of the fibro-caseous form of tubercular peritonitis, more especially as a few years ago her sister died after a brief illness, demanding laparotomy for intestinal obstruction caused by such fibroid bands. The prognosis apparently was not so very unfavourable in any of the forms as was formerly thought. As to treatment, his bias was in favour of exploration where there was any doubt, the risk being slight. That any benefit could be attributed to air and light seemed absurd where a two-inch incision was made, and only a fragment of the pathological material saw the light of day. With regard to the new disease, if he might so term it, he was anxious to protest against the word "polyorromenitis," or "poliorromenitis," as it appeared in Dr. Marten's paper. If we must have a classical term, then "Poly-oro-meningitis" would be far more accurate. When spelt with an "i" the word suggests "an attack of anger in the tip of one's spine," for *πολιός* means "grey," and *ὀρρός* stands for "os sacrum," whilst *μῆνις* means "wrath." The proper word for membrane is *μῆνιγξ*, the genitive of which is *μῆνιγγος*. The Greek for serum is *ὀρός*, *ὀρρός* being the unusual form. In these criticisms he had the support of Prof. Bensly. He (Dr. Lendon) could recall one marked case of this sort. A man of 19 was tapped for pleurisy before coming under his care. Suppuration took place, and the right pleura was opened and drained. It was some months before it closed, and meanwhile the left side of the chest commenced to fill with serum, for which he was aspirated about once a week for several weeks. A month after the last aspiration the abdomen commenced to swell. This required only one tapping, on which occasion O xv. were drawn off. He writes to me now (seven years later), to say that he has remained well, has been able to carry a swag in Western Australia, and only occasionally is short of breath on exertion.

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* Wien Kln. Wochenschrift, June 20th.

Dr. **SWIFT** said that Dr. Marten had appealed to him in his paper for confirmation of his statement that ulcerous tuberculous peritonitis was frequently to be seen in Great Ormond Street. He was able to bear out this statement, for whilst in residence there the wards were never free from two or three cases of fæcal fistula due to this cause, but it had always appeared to him a most remarkable thing that out in this State this disease was one of the rarest that we had to treat; in fact, during the last ten years he had seen two cases only of typical ulcerous tuberculous peritonitis. Dr. Lendon had just said he had had very little experience of this symptom out here, and Dr. Hayward also bore similar testimony. We three medical men have been on the staff of the Children's Hospital for several years, and we are agreed that this is one of the rarest tubercular lesions we meet with. Tubercular disease in cows is common; why, then, if the bacilli are transmitted by the milk, do we not meet with tabes mesenterica and ulcerous tuberculous peritonitis every day? The disease, as I have said, is common enough in England. Tubercle in other regions of the body is common enough in this State. Why is this particular form so seldom seen? I confess I do not understand the reason. Another most interesting point Dr. Marten has raised in his paper is that of the question as to why free incision should effect a cure. That it does so is undeniable. Seeing that this is so in the case of the peritoneum, one wishes to apply the same treatment to tubercle affecting other regions. Five years ago I trephined a child with tubercular meningitis and tapped the ventricles, drawing off a considerable amount of fluid; a year or two after this I trephined a child that I thought might have a tumour. I found tubercular meningitis. They both died. Perhaps if we trephined and also drained for some days either the ventricles or the subarachnoid space, we might attain a different result. But Sir Thomas Barlow, in "Allbutt's System of Medicine," has a most interesting article, and sums up by saying that the widespread cerebritis and softening, together with the hydrocephalus and plugging of small vessels, would appear to produce a too formidable combination for any surgical interference to remove. In regard to Dr. Verco's paper he agreed with Dr. Hayward that the *onus probandi* lay with the author of the paper. He started by giving certain definite causes of the disease, and then quotes a case that answers to none of these, but as it gets well, the exact cause cannot be determined. If it were not tubercular, what was it? Cases of tubercular peritonitis—the diagnosis being verified by operation and bacteriological examination have recovered. The balance of probabilities is in favour of tubercle, and not of some unknown or "idiopathic" cause.

The authors, Drs. Marten and J. C. Verco, then replied.

Dr. W. A. **VERCO** then read his paper on "Henoch's Purpura" (see p. 418.)

QUEENSLAND BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

A **GENERAL** meeting of the Queensland Branch of the British Medical Association was held on Friday, October 4th, the following members being present: The Hon. W. F. Taylor (president), Drs. Thomson, Lightoller, Nall, Sutton, Hopkins, Hawkes, Orr, Macdonald, Hirschfeld, Comyn, Lockhart Gibson and Brockway. Visitor, Dr. Zwar.

Dr. **THOMSON** exhibited (1) Some uncommon micro-organisms obtained from the expectoration of patient suffering from pneumonia subsequent upon a fall into the Brisbane River. (2) An otherwise healthy-looking man suffering from a huge "cauliflower" epithelioma of lower jaw. (3) A large "mulberry" oxalate of lime calculus removed by lateral lithotomy. (4) A similar calculus found in the bladder of a sheep exhibited in situ.

Dr. **HAWKES** exhibited (1) A fibroid, 8 lbs. in weight, removed by Kelly's method of panhysterectomy. (2) An unruptured tubal gestation with the following notes, which include a description of a similar case exhibited at the last meeting :—

No. 1.—M.S., *æt.* 32, three children, last five years ago. Had one miscarriage at eight weeks in February, 1901. Her last menses terminated on July 19th. She was always regular, the period being four weeks less one day from the termination of the previous menses. On August 21st had pain on left hip and just outside left anterior superior spine. This came at times during the next eight days, then a red uterine discharge began and continued till September 17th, when she was seen by Dr. Brockway, and extra uterine pregnancy diagnosed. On September 7th there was some pain over the left side of the lower half of the abdomen as well as near the anterior superior spine. On examination a mass could be felt, apparently about two inches long, to the left of and behind the uterus. The abdomen was opened on September 20th, some free blood found in abdominal cavity. The left tube and ovary were removed. The tube was not ruptured, and contained an oval mass of clot 1¾ in. x ¾ in. The ovary was surrounded by blood clot, and contained a corpus luteum, into which hæmorrhage had taken place, and which was probably the source of the intra peritoneal bleeding, as no leakage through the fimbriated end of the tube was apparent.

No. 2.—M.L., *æt.* 27, one child five years ago. Last menses terminated June 15th, 1901. July 6th, severe pain in right side of lower abdomen. July 7th, red uterine discharge appeared and persisted till time of operation. July 13th, some pain. August 1st, severe abdominal pain and collapse. Seen on August 10th by Dr. Brockway, who found some uterine bleeding persisting, pain and tenderness of the right half of the lower abdomen. On examination a mass was found to the right of and behind the uterus. Extra uterine pregnancy was diagnosed, and the abdomen opened. The right tube was found to contain a mass of clot about 1⅓ in. diameter, and to be bleeding from the fimbriated end. There was also a clot adherent to the ovary, and filling up the lower part of Douglas' pouch. The tube and ovary were removed. On examination after hardening no rupture of either tube could be found. The duration of pregnancy and the size of the blood clot not being sufficient to cause rupture. The after course of both cases was uneventful.

Dr. T. **MACDONALD**, Geraldton, was nominated for membership.

A letter was read from the medical practitioners of Inverell, N.S.W., calling the attention of the Branch to a dispute which had arisen between them and a Lodge of the town. It was decided to support the medical men by the insertion of counter advertisements should any advertisements by the Lodge appear in the Queensland papers.

Dr. **LIGHTOLLER** read a paper on "Surgical Hæmorrhage." (See page 419.)

WEST AUSTRALIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

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ORDINARY meeting for September, held at Fremantle Hospital, Saturday, September 7th, 1901.

Present:—Drs. Davy (chairman), Lovegrove, Hope, Deravin, Dermer, Lotz, and Anderson (hon. sec.)

The minutes were read and confirmed.

Correspondence.—Letter from Dr. Sprott *re* section on ethics, stating it was too late for this Congress but an attempt would be made to establish one at the next Congress. Dr. Sprott also stated it was intended to form an Australasian Medical Association in place of the Congress and asked for an expression of opinion from the Branch. It was resolved to reply to the effect that the Branch did not feel justified in expressing an opinion until a definite scheme had been propounded.

Resolved that a sub-committee of Drs. Davy, Saw, and Horrocks be appointed to draw up a code of ethics for submission to the next meeting.

Letter from General Secretary, London, stating that Mr. Victor Horsley was not eligible to act as representative of the Branch on Council. Resolved that secretary write to general secretary asking that the present by-law for election of representative be altered to enable any member of the Association to be selected to act, as by the present by-law the Branch is practically disfranchised and to point out that this disability may apply to other Branches in the Empire.

The correspondence between the secretary and Dr. Lovegrove *re* the vaccination notice in the press was then read. Dr. Lovegrove personally explained the whole matter. It was resolved that the explanation be accepted as satisfactory.

A specimen of a ruptured abdominal aneurism was shown. Patient had only complained of abdominal symptoms for a fortnight before death. The whole aorta from the heart to the sac was calcareous. The meeting then terminated.

October meeting, held at Perth Hospital, Saturday, October 5th, at 8.15 p.m. Present: Drs. Tratman (chairman), Deravin, Horrocks, Black, Davy, Harper, Thompson, Astles, Saw, Randell, Harvey, and Anderson (Hon. Sec.).

The minutes of the last meeting were read.

Dr. **DAVY** proposed, and Dr. **HORROCKS** seconded the following resolution: "That the secretary write to Dr. Hicks, M.L.A., requesting him to ask the following questions in the House: (1) Who is the Superintendent of Vaccination? (2) Who is the Public Vaccinator for Perth, and when was he gazetted? (3) Can the Superintendent of Vaccination act as a Public Vaccinator?" Carried.

The minutes were then confirmed.

Dr. **SAW** showed a man with an ununited fracture of the humerus of twenty years' standing, in which a perfect false joint had formed.

Dr. **KELSALL** showed two eye cases—(1) case of optic atrophy, (2) case of detachment of the retina.

Correspondence.—Minutes and despatches were received from the Medical Department in reference to the collection of mosquitoes. It was decided to ask that copies of the pamphlet be distributed to medical men, and that the necessary instruments should also be made available if required. The Report on the colonial additions to the British Pharmacopœia was received; no further action was taken.

Dr. **HORROCKS** then proposed the following resolution, notice of which had been given: "That newly registered medical practitioners may advertise the simple announcement that they have commenced practice in a certain place in the local press for a period of one month; also, in the case of change of address, resumption of practice after illness or holiday, an announcement may be inserted for one week." Dr. Horrocks stated that this was intended to operate until such time as the sub-committee appointed to draw up a code of ethics presented its report. The resolution was seconded by Dr. **ASTLES**, and carried unanimously.

Paper.—Dr. **HORROCKS** read a paper bearing on the notification of consumption. He briefly enumerated the historical aspects of the question, and pointed out that the chief source of danger was from the expectoration in the excavating stage of consumption. Notification in New York had resulted in a diminution of mortality of 35 per cent. In the Strand district, London, the medical officer of health disinfected rooms, clothes, etc., of all patients dying of consumption.

Drs. **ASTLES**, **DAVY**, **HARVEY**, **BLACK**, **ANDERSON** and **TRATMAN** discussed the paper.

Dr. **HORROCKS** then moved the following resolution: "That all cases of consumption shall be reported to the Local Boards of Health, and by them forthwith to the Central Board, and that a deputation be appointed to immediately wait upon the Minister, Mr. James, in order to obtain the necessary amendment in the Health Act; and that, further, power to make regulations be obtained by the Central Board, as regards the precautions to be taken to prevent the spread of tuberculosis and to prohibit expectoration in public thoroughfares, conveyances, and places of public resort." The resolution was seconded by Dr. **ASTLES**, and carried unanimously.

Drs. Horrocks, Astles, and Davy were appointed as a deputation.

MESSRS. FALK & CO., have asked us to remind members of the New South Wales Branch of the proposal contained in the June issue of the *Gazette*, and to request them to pay an early visit to the Studio, 496 George Street, Sydney.

PROCEEDINGS OF OTHER SOCIETIES.

SYDNEY METROPOLITAN MEDICAL ASSOCIATION.

A meeting of the Sydney Metropolitan Medical Association was held on Friday, 11th inst., in the Mayor's Room at the Town Hall, Sir James Graham having invited the members to be his guests for the evening. There were about forty members present, and a most enjoyable evening was spent. Dr. Armstrong, in conjunction with Sir James Graham, read a paper on "Municipal Sanitation," detailing some of the improvements that have of late been made in the sanitary service of the city. Drs. Hankins, Jamieson, and Megginson spoke.

Dr. **Hankins**, as President, proposed a vote of thanks to Sir James for the paper and for his hospitality, which was carried with acclamation.

Dr. **Sinclair Gillies** proposed, and Dr. **Palmer** seconded, "That the paper be sent to the daily papers for publication."

Musical items were rendered by the Orpheus Quartette, and by Drs. Hankins, Gledden, Hughes, MacLaurin, O'Neill, and the Pianola Company.

Proceedings terminated by three cheers for Sir James Graham.

MEDICAL DEFENCE SOCIETY OF QUEENSLAND.

The first annual meeting was held on Friday, 20th September. The Council's report was read and adopted. Council's report:—Gentlemen,—Your council have pleasure in submitting to you the first annual report of the Medical Defence Society of Queensland. On Friday, 4th May, 1900, at a meeting of the Queensland Branch of the British Medical Association, it was unanimously resolved that it was desirable to form a Medical Defence Association for Queensland, and a sub-committee was appointed to draw up a report, namely, Dr. Thomson (president of the Branch) Drs. Taylor, Francis, Connolly, and Brockway. This sub-committee accordingly met and recommended that a Medical Defence Society be formed, separate and distinct from the Branch, that the entrance fee be 10s. 6d., and the annual subscription 10s. 6d. They also formulated a series of "objects," which was laid before a meeting of the Branch. The sub-committee was then made a provisional committee, and empowered to draw up articles of association, and to enrol members. At the first meeting of the provisional committee it was resolved to issue a circular to all Brisbane and Ipswich members of the Branch, Dr. Brockway being appointed honorary secretary and treasurer *pro. tem.* The circular obtained a fairly satisfactory response.

As it was seen that a considerable amount of legal work would be involved in the formation of the Society, it was resolved to appoint an honorary solicitor, and your council have been very fortunate in securing the services of Mr. Stuart Cameron, whose interest and enthusiasm cannot be spoken of in too high terms.

At a general meeting of the Society, held on February 22nd, 1901, ballot for membership of the council resulted as follows:—Drs. Taylor, Connolly, Brockway, Francis, Peter Bancroft, Hopkins, Robertson, Sutton, Hardie, Hawkes, and Carvosso. At the first meeting of the Council, held on March 8th, 1901, the following appointments were made:—President, The Hon. W. F. Taylor; Vice-president, Dr. P. Bancroft; Hon. Treasurer, Dr. Sutton; Hon. Secretary, Dr Brockway; Hon. Auditors, Drs. Thomson and Orr. Bye-laws, drafted by the Hon. Solicitor, were considered, and, with some amendments, adopted. These were submitted by Mr. Cameron to the Crown Solicitor, who made objection to the form in which they were expressed and referred them to the Attorney-General. The President, Hon. Secretary, and Hon. Solicitor waited upon the Attorney-General, as a result of which interview and some correspondence between Mr. Cameron and the Crown Solicitor, the articles of association were freshly drafted in more general terms by Mr. Cameron, and these, being approved by the Crown Law Office, were adopted by the Society.

The society received its certificate of incorporation on June 29th, 1901, and on the advice of the Hon. Solicitor, the number of members was raised to 250. Copies of the articles of association were printed, and with a circular, briefly enumerating the advantages of the Society, posted to medical men throughout the state, with the result that there are now forty-eight members. Four meetings of Council have been held with the following record of attendance:—Dr. Taylor, 4; Dr. Hawkes, 4; Dr. Brockway, 4; Dr. Robertson, 3; Dr. Sutton, 2; Dr. Hopkins, 2; Dr. Francis, 2; Dr. Carvosso, 2; Dr. P. Bancroft, 1; Dr. Connolly, 1; Dr. Hardie, 0. The above appointments were temporary, and at this, the first annual meeting of the Society, you are asked to appoint a Council in accordance with the articles of association.

Your Council are satisfied with the work accomplished since the suggestion of the formation of the Society by Dr. Taylor. There may not appear to be much result, but the intricate workings of the law are notoriously slow, though sure, and your Hon. Solicitor has laboured hard, continuously and successfully.

The initial expenses, chiefly legal and printing, have been proportionately heavy, the income of the Society have been approximately £50, and the expenditure £24, leaving a balance of about £26. The cheque book and receipt book are open for your inspection.

Finally, your Council hope that the influence of members will be used in order to aid in securing an unanimous membership of the profession, so far as it is desirable, in the State of Queensland. The following members were nominated for the Council and declared duly elected:—Drs. Taylor, Sutton, Robertson, Hawkes, Hopkins, Francis, Flynn, Connolly, Comyn, Peter Bancroft, and Brockway.

A general meeting of the Medical Defence Society of Queensland was held on Friday, September 20th, in the rooms of the Queensland Branch of the British Medical Association, the following members being present:—The Hon. W. F. Taylor (President), Drs. Francis, Robertson, Sutton, Hawkes, Comyn, Flynn, Wield, and Brockway (Hon. Sec.)

Dr. **Sutton** spoke to a number of resolutions with reference to the duty of medical practitioners towards one another in relation to fees. A general discussion followed with the result that the following resolution was carried unanimously:—"That in the opinion of this Society it is desirable that—

"1. When a medical practitioner in attendance on a patient calls in another medical practitioner to consult with him, the fee shall be collected by the medical attendant and paid at the time of the consultation.

"2. When a medical practitioner in attendance on a patient calls in an anæsthetist, the fee shall be collected by the medical attendant and paid at the time of the administration of the anæsthetic.

"3. When a medical attendant calls in a medical practitioner to operate, the fee shall be by arrangement, and shall be collected by the medical attendant and paid as early as may be. The operator's fee shall be in all cases a prior claim to the charges of the medical attendant.

"4. When in the absence of the medical attendant a medical practitioner is called in by a patient, the medical practitioner shall see the case as for the medical attendant, and shall notify the latter at the earliest-possible opportunity. The medical attendant shall collect the fee and hand it on to the medical practitioner.

"5. When in the temporary absence of the medical attendant a medical practitioner is called in, the fees shall be by arrangement. If no arrangement have been made the case shall be governed by the last preceding clause.

"6. When the patient fails to pay, this shall not exonerate the medical attendant from the duty of paying the medical practitioner called in, unless the latter have consented to undertake the case knowing the doubt as to the collection of the fee."

FOREIGN ABSTRACTS.

By Walter Spencer, M.D., Enmore, Sydney.

The building of a special University for women has been commenced in Tokio. A rich family donated the ground, and three public-spirited citizens alone contributed £2,500. It is expected to be open next spring. There is quite a rush for entrance. In about seven years we may be invaded by bevies of pretty young Japanese doctoresses, thoroughly up-to-date and expert pathologists, with surgery at their fingers' ends.

Thirty-one medical serials are now published in Japan, including one devoted to Ear, Nose and Throat, two to Obstetrics, two to Pharmacy and Chemistry, and two to Dentistry. In the *Sei-i-kwei* of Tokio appears a letter from Dr. Ashmead of New York on LEPROSY, tracing its etiology to fish and mosquitoes. the fish acting as intermediary hosts for bacillary spores. Wherever fish is eaten raw, as in Japan, Norway, the Iberian Peninsula, the Baltic Provinces, Iceland and the Canaries, leprosy is endemic. In the Canaries the fish is eaten putrid.

The *Sei-i-kwei* is printed in English and Japanese the latter illustrated by clinical charts and by clinical and microscopical pictures.

The Pan-American Medical Congress, which would have met at Caraccas were it not for the Venezuelan war, assembled last February at Havannah. The first Congress met in Washington, the second in Mexico. The *Revista de Medicina y de Cirugia de la Habana* reports the proceedings, which possess much interest.

In the same journal Dr. Perez Miro describes a sign of STERCORAL TYPHLITIS, best explained by the notes of one of the cases quoted :—"The patient had suffered for days from intense pain in the right iliac fossa, pulse more frequent small and compressible than would correspond to moderate pyrexia, vomit being at first mucous, then bilious, and finally fœtid, without flatus or fæces per anum, but with foul breath, tongue coated with yellowish fur, viscid saliva. I sat at right hand of the patient, who was recumbent with his knees semi-flexed, passed the palms of my hands along the ascending colon and perceived a wide, large, cylindrical, hard and tender swelling, no hotter than neighbouring regions, directed from above downwards and from without inwards to the inferior part of the right iliac fossa; measuring to the centre of the tumour near its lower end, I pressed the point of my index finger perpendicularly, at first gently then with increasing force during a few minutes; raising the index and then passing the finger-tips along the tumour they perceived the depression I had made before, although no sign of it could be found on the abdominal wall. The diagnosis being thus made, hot poultices were applied to soften the fæcal mass, abundant enemata medicated with sod. sulph. administered every hour and castor oil given by the mouth. copious fæcal depositions heralded complete cure."

Dr. Luis Ortega contributes a study of the toxic causes of CHRONIC ENTERITIS in the adult, relating a number of cures by subcutaneous injection of equine serum—5 c.c., increasing gradually to 25 c.c. After the sixth injection good effects were manifest, twenty-five sufficed.

Annales de Medicine et Chirurgie Infantiles.—Dr. Foveau de Courmelles reviews the beneficial uses of infantile RADIOTHERAPY since the first experience of Von Stein of Moscow in 1891; amongst others, in malignant scarlatina under red light, and describes the various apparatus used.

M. Metchnikoff points out the relative frequency of entozoa in APPENDICITIS. Nematodes exercise a direct mechanical influence, and whilst damaging the mucosa introduce also a culture of microbes. The trichocephalus is, moreover, able to perforate the mucosa, and to cause further inflammatory reaction. Numerous cases have been cured by vermifuges, and examination of the fæces for ova should no more be neglected in appendicitis than of the sputa in phthisis or of the urine in renal disease.

Dr. Moty remarks on the frequent presence of oxyuris vermicularis in resected appendices. In three recent operations out of five whose etiology had been undetermined, it appeared to be the only cause.

Semaine Medicale.—Dr. Mossé affirms that in certain cases of DIABETES, especially the arthritic, potato may not only be authorised as diet, but should be recommended as a substitute for bread. Dr. Brocard considers it to be indicated for the glycosuria of pregnancy.

Dr. Roos reports the favourable action of brewer's yeast on habitual constipation. Its effects are evident from the second day and persist for a time after the treatment.

Revue Internationale de Therapie Physique reviews reports upon the THERAPEUTIC VALUE OF LIGHT, solar and electric, on sycosis under Röentgen rays, on neurasthenia by Franklinisation, on eczema by red light, etc. Dr. Balzer describes the cure of PSORIASIS by large baths in which oil of cade, first emulsified with soap, is well mixed up. The bath should last for forty minutes, and be repeated every second day. Fifteen baths usually suffice Dr. Ménard remarks that osseous or articular TUBERCULOSIS is not exacerbated by sea-air, but that adenopathy and ganglionic degeneration may be increased by the access of sea-air to small buccal, nasal and pharyngeal ulcers in the track of the affected glands.

Bulletin de l'Academie R. de Medecine de Belgique.—A sub-committee reports upon the claim of Dr. Delangre, of Tournai, to have been the first to practice surgical prothesis by injection of sterilised vaseline into the tissues, before the announcement of Dr. Gersuny, of Vienna. His method is the same as Gersuny's, except in the addition of colouring matter to the vaseline. Gersuny treated persistent incontinence of urine which supervened after operation for vesico-vaginal fistula, with two injections at seven days interval, under cocain anæsthesia, through the mucosa of the vestibule and of the vaginal wall, into the submucous tissue of the bladder all round the vesical orifice, of 6 c.c. of vaseline, which formed a ring over against the vagina. After castration for tubercular epididymitis, a globular resistant mass was made by injection of 8 c.c. Pain was transient. After operation for hare-lip—the patient being unable to pronounce the word "gay," injection was made into the velum and the uvula. A thickening resulted which enabled the velum to be applied to the posterior pharyngeal wall and perfected the articulation. Dr. Delangre obliterated the depression at the site of an old abscess by the same means, which may also be employed to restore the shape of a deformed nose, to promote union of skin-wounds which are situate over a cavity having rigid walls, and to prevent articular ankyloses after operation.

The following precautions are recommended:—1st. To inject some time after an operation when the traumatism is entirely healed. 2nd. To avoid injecting into bloodvessels; to use only pure vaseline fusible at 35° to 40° C. 3rd. To inject very little at a time. 4th. Not to inject again until the vaseline already injected has been quite incorporated.

Archives Orientales de Medicine, Etc. — Prof. Severeano, of Bucharest, has used Kelen for producing general anæsthesia. Patients lose consciousness after a few inspirations, and awaken without headache or nausea as soon as the mask is removed. Dr. Safaridis, of Constanza, extols the Roumanian treatment of acute articular rheumatism, *i.e.*, massage for ten minutes every day with common petroleum. He quotes fifty cases, and gives thermometric charts of twelve. He gives no internal remedies.

Drs. Tostivint and Remlinger attribute the immunity of the Jews of Tunis from tuberculosis, which scourges the Musulman and general community, to the use of MOISTURE IN DOMESTIC CLEANSING. Even among the poor the floors, stairs and corridors (usually of marble) are wiped with moist cloths several times a day, reducing atmospheric dust to a minimum. These people use but little furniture, in strong contrast with the apartments of Europeans, which are encumbered with it.

Les Nouveaux Remèdes.—Among the notices of an enormous number of new and recent drugs, Drs. Gerest and Rigaud publish an interesting study on the value of PYRAMIDON against pyrexia, especially in enteric fever, when the patient absolutely refuses cold external applications. Its dose is only a fourth of that of antipyrin, it acts more quickly, and its effect lasts longer; it causes no malaise. New astringents, FORTOIN (combination of cotoïn and formaldehyd), TANNOPIN and HONTHIN are described. TETRAMETHYLCYANPIRIDON is a new myotic, which produces a less lasting myosis than eserin and pilocarpin. It is employed to stimulate without cramping the ciliary muscle in maculæ corneæ, irregular astigmatism, kereto conus, etc. Manasse records sixteen new cases of articular rheumatism treated with ASPIRIN without a failure. It presents no drawback. Zimmermann prescribes 2½ to 4 grammes per diem without any other remedy. The dose is followed by a light sweat, by diminution of pain and fall of temperature. Several other experimenters record approval, as of a remedy likely to afford great service.

Numerous new drug treatments have been essayed for tuberculosis, amongst others the vapor of IGAZOL, which gives off formaldehyd. ICTHARGAN has been used by Unna as a kerato-plastic. EVQUININ has the advantage of being tasteless, though of equal value with quinine against malaria.

Berthier describes the successful treatment of dysentery by enemata of methyl-blue. In cases of associated gastric troubles and emesis, 10 to 20 cg. given in cachêt by the mouth afford relief. Pagel, Imbert, Bodel and Langlois, studying independently the action of CACODYLIC ACID, concur in testifying that it may traverse the system without being absorbed, or altered chemically, and be found unchanged in the urine. As an alterative, hypodermically ℞ Sod. Cacodyl. 6 gr. 40 cg. + Phenic Alcohol 10 drops + Aq. dist. 100 gr. Each c.c. contains 5 cg. of Ac. Cacodyl. Every day one or two hypodermic injections may be given of 1 cm. Professor Renaud prefers to give it per anum, and presents two formulæ:—1st. Weak: Sod. Cacodyl. 25 cg. ex Aq. dest. 200 gr. 2nd. Strong: Sod. Cacodyl. 40 cg. ex Aq. dest. 200 gr. For dermatoses it is sometimes given by the mouth: Sod. Cacodyl. 10 cg. + Ext. Gentian q.s. ft. pil.

A new and highly assimilable iron compound, FERSAN, is coming into use, and is said to merit the highest praise. It is an acid albuminate, which passes unaltered through the stomach, to be almost entirely absorbed without irritation in the intestine. Test experiments made with PAPAIN mixed with pancreatin prove that neither ferment suffered loss of digestive power; but papain mixed with pepsin in a neutral medium, partially destroyed the virtue of the pepsin, an acid medium destroyed the papain.

LETTER TO THE EDITOR.

AN INSURANCE SOCIETY *V.* A MEDICAL MAN

(*To the Editor of the Australasian Medical Gazette*).

SIR,—Some time ago a representative of the Australasian Temperance and General Mutual Life Assurance Society waited upon me and threatened that unless I took out a policy with his society, another medical man would be brought into this district to examine candidates. I refused to be coerced and a medical man practising some 28 miles away was brought down to this township to examine for the society. At this time I received some fees for previous examinations and when sending the receipt made a complaint of the society's action and stated that in future I should refuse to examine any case for the society. The following reply came to hand.

DEAR SIR,—Yours of 21st inst. to hand with voucher in acknowledgment of medical fees, for which I thank you. Jn regard to your grievance, I beg to say this is the first occasion that I have had any complaint made respecting our Superintendent's mode of conducting business, and cannot think he used any measures that would cause offence. It is always our practice, however, to do business as far as possible with those who are prepared to reciprocate, and that is our only reason for acting as we have done. As we are becoming well established in the neighbourhood and are likely to considerably increase our business, I am quite prepared to let you have a fair share of our examinations, provided you are willing to take out a policy for a reasonable amount, say £500. I am sorry you have considered it necessary to decline to examine for the society as I can assure you that there was no intention of giving offence, and we were only acting on business lines. Trusting to receive a satisfactory reply to my suggestion, with compliments,

Yours faithfully,
Adelaide, ALEX. S. JACKMAN,
September 24th, 1901. Accountant.

To this I have replied—

September 25th, 1901.
DEAR SIR,—I will neither insure in your society nor examine for it.
Yours, etc., EDWARD E. MOULE.

Yours, etc.,
Mannum, S.A., EDWARD E. MOULE.
October 1st, 1901.

OBITUARY.

EDWARD W. WAY, M.B. EDIN AND ADEL, M.R.C.S. ENG., L.R.C.P. LOND.

WE regret to have to record the death of Dr. E. W. Way, of Adelaide, which occurred very suddenly on Saturday, September 28th. Although not unexpected, it yet came as a great shock to his immediate friends. Suffering from what he well recognised himself as a disease which must sooner or later terminate his life suddenly, he displayed splendid courage, and outwardly showed little trace of his physical sufferings. He was in his usual buoyant spirits on the morning of his death, and was proceeding with an operation when the end came. He had amputated a fibro-cystic cervix at the North Adelaide Private Hospital, and was about to explore the abdomen of the same patient when he suddenly called out, "Watson, come quick," and immediately dropped dead on the floor before assistance could reach him. Fortunately, he had only made a skin incision when this happened. Thus his often-expressed wish to die in harness was gratified in the room in which he had spent so many hours of his life, and the scene of so many of his surgical triumphs. Professor Watson, Dr. Lowson of Hongkong, Dr. F. Magarey, and Dr. Angas Johnston were around, whilst Dr. Evans was assisting at the operation and Dr. Gerald Hayward was the anæsthetist. Dr. J A. G. Hamilton, who usually assisted him, was quickly summoned, but only to find his old friend beyond recall.

Dr. Way, son of the late Rev. James Way, was born in Exeter, Devonshire, in 1846, and came to South Australia as a child. He was educated at St. Peter's College, and when still in his teens returned to England to study medicine. Entering Guy's Hospital he obtained his M.R.C.S. and L.R.C.P. in due course, and proceeded to Edinburgh to graduate there. Whilst at the Royal Infirmary in Edinburgh he acted as dresser to Mr. (now Lord) Lister, and would have been his house surgeon had he not been recalled to Australia. He was house physician to Grainger Stewart, and assisted him considerably in his literary work. This old acquaintance was renewed under pleasant circumstances in 1899, when a holiday in Europe was undertaken. For a young man Way was associated with many distinguished seniors—Matthews Duncan, Sir R. Christison, Hughes Bennett, Sir Samuel Wilks, and Thomas Stevenson all being great friends of his. He acted as demonstrator in anatomy for some time, and also as resident surgeon at the well known Cowgate Dispensary—but the honour which he most prised in after life was the distinction conferred on him by the members of the Royal Medical Society, who elected him their senior president. It will thus be seen that he had more than an ordinary share of the honours open to the budding medico.

In 1873 he returned to Adelaide and rapidly obtained a very large private practice, and in addition was appointed Health Officer for the city. He was a member of the Board of Management of the Adelaide Hospital, and a member of its honorary staff for almost twenty years, doing much to elevate the surgical tone of the hospital to the high standard of a later period. The Children's Hospital claimed him in similar capacities with the most beneficial results, whilst his services to the Adelaide University were also considerable. He was for some time representative on the Council for the graduates, and did good work there. When the medical school was started in 1885 he was appointed lecturer on obstetrics and gynæcology, a position he held until his death. In this capacity he soon made himself recognized as one of the most distinguished teachers and skilful operators in Australia. He always kept himself somewhat in advance of, rather than behind the times—his immense and ever-increasing library bearing testimony to his desire to be posted up in everything new. He was a past president of the local branch of the British Medical Association, and was elected President of the Gynæcological Section of the Intercolonial Medical Congress in 1896. In all of these positions exceptional business sagacity was added to intellectual vigor and skill, and the success of many schemes was assured when Way promised his help.

The great stress of his public duties, added to the worries of an extensive practice, began to tell on his health about ten years ago, and aortic insufficiency developed in 1891. He was persuaded to take a rest, and accompanied the late Mr. C. G. Miller for a six months' cruise in his yacht "Sadie" to Japan and the Malay Islands. He returned greatly improved. At this time he took into partnership Dr. J. A. G. Hamilton, and consequently lessened the pressure of practice on his time and health—in fact, after this period he devoted himself almost entirely to consulting and operative work. In many new and now well-recognized methods of abdominal and pelvic surgery he led the way. He was the first in Australia to discard the pedicle in ovariotomy, and to abandon the ligation of the broad ligaments in hysterectomy. In our hemisphere he undoubtedly led the way in plastic surgery of the ovaries, and in myomectomy, on one occasion removing a myoma weighing 1 lb. 11 oz, and a three month's fœtus from a primigravida who has since borne two healthy children.

As a man, Dr. Way occupied an absolutely unique position. He was the friend and adviser of almost every man in the profession in South Australia. His sound judgment, kind and disinterested advice was often sought and always valued by both juniors and seniors. There is hardly a medical man of the present generation in the State who does not owe a debt of gratitude to Dr. Way for support and encouragement at the initial stage of his career. One may safely say it is given to few to possess the confidence of his colleagues. not only in this State, but throughout Australasia, as Dr. Way did.

Of late years he suffered frequently from attacks of deafness, probably brought on by circulatory changes, and this caused him to practically withdraw from that society he formerly adorned. Many most eminent visitors to Australia used to gravitate to his house in North Terrace, where the most intellectual congregated. Not only men of his own profession were to be found there during spare moments, but men famous in other lines. Mark Twain, J. L. Toole, Madame Neruda, and many of the leading members of the musical and theatrical professions were evidently only too pleased to enjoy his company, and it gave him the greatest pleasure to receive newspapers and other mementos at various times from those who had partaken of his open-handed hospitality.

He leaves behind a widow and six children—four daughters and two sons—one of the latter having already distinguished himself in South Africa as a lieutenant in the R.A. He was a younger brother of Sir Samuel Way, Bart., the Lieutenant-Governor and Chief Justice of South Australia. An immense concourse of people followed the remains to the cemetery, the coffin being borne by the students of his University class, whilst six of his colleagues acted as pallbearers.

The very numerous wreaths and floral offerings were tributes of the large friendship the deceased enjoyed.

THE AUSTRALASIAN
MEDICAL GAZETTE.

EDITED FOR THE PROPRIETORS (PRO. TEM.) BY
W. H. CRAGO, SYDNEY, N.S.W.;
AND FOR THE OTHER BRANCHES OF THE
BRITISH MEDICAL ASSOCIATION BY
A. B. BROCKWAY, BRISBANE, Q.; H. W. BRYANT,
WILLIAMSTOWN, VIC.; J. B. GUNSON,
ADELAIDE, S.A.; AND J. MASON, OTAKI, N.Z.

SYDNEY, 21ST OCTOBER, 1901.

EDITORIALS.

THE INTERCOLONIAL MEDICAL CONGRESS OF AUSTRALASIA. A PROPOSED AUSTRALASIAN MEDICAL ASSOCIATION.

WE publish elsewhere (see page 457 *et. seq.*) some particulars of the approaching session of the Congress which is to be held at Hobart in February. 1902. Hobart should prove very attractive in February, and we look forward to a large attendance. The subject chosen for a general discussion is Cancer. The discussion will doubtless prove an interesting one, and let us hope that it may lead to a distinct advance in our knowledge of the etiology and treatment of that fell disease.

Another discussion of considerable importance to the medical profession throughout Australasia will take place on the proposal to form an "Australasian Medical Association, with a permanent council, in lieu of the present Intercolonial Medical Congress of Australasia." At first sight this proposal seems a feasible one, but it will require very careful consideration from different points of view. The Intercolonial Medical Congress has played a very useful part in the medical life of Australasia since its inauguration at Adelaide 13 or 14 years ago, and with the necessary change in its name is still capable of carrying on that work. The formation of an Australasian Medical Association implies the breaking up of the Branches of the British Medical Association which have done such good work in these States. There is no need for two associations of the kind, and an Australasian Medical Association could only become a success by the disruption of the State branches of the British Medical Association. This, we think, would be a serious step to take, as the prestige of belonging to such a world-wide association as the British Medical Association, with its 16,000 or 18,000 members, is no small one. It may be said that the members of the new association could retain their individual membership of the British Medical Association, and so continue to receive the *British Medical Journal*. This we feel sure would not prove satisfactory. It has long been the desire of many members of the profession in different States that steps should be taken to bring about the formation of an Australasian Branch of the British Medical Association to which the State Branches could be affiliated. If this could be successfully accomplished—and it has already been *practically* effected through *The Australasian Medical Gazette* having been made the official organ of all the Branches—it would be far preferable to the formation of a new Australasian Medical Association, and the annual or biannual meetings could be held in the different State capitals in succession, and so take the place of the Congress. It is hoped, and expected, that in the new constitution for the British Medical Association, which has lately been exercising the minds of the council of that body, complete autonomy will be granted to colonial branches to govern themselves as they think fit, provided their rules and by-laws do not contravene any fundamental rule of the parent association. The suggestion that this autonomy should be granted has been made by the New South Wales Branch, and also by some of the other Branches. It has been recognised that certain obstacles to the successful replacement of the Congress by meetings of the Australasian Branch of the British Medical Association have existed in the past, in two of the States, but fortunately in one fo them the obstacle no longer exists, and in the other it may be hoped that wise counsels, and the exercise of a little mutual forbearance, will soon put matters right. There are considerably over 1,000 members of the British Medical Association attached to the various branches throughout Australasia, besides a considerable number of unattached members. The machinery already in existence in connection with the branches would be available for carrying on the duties now undertaken by the Congress. A council consisting of one or more representatives of each branch would have to be formed, but from the distances existing between the State capitals the meetings would be very few and far between, and most of the business would have to be transacted by correspondence. We think this is a matter that should be well ventilated before the meeting of the Congress, and with that end in view solicit correspondence.

THE BATTLE OF THE CLUBS.

A LETTER published elsewhere in this issue (page 455) from three of the medical practitioners of Inverell, N.S.W., who are members of the New South Wales Branch of the British Medical Association, details fully the facts of a dispute that has arisen in that town between the Manchester Unity I.O.O.F. and its medical officers. Fortunately, the four medical men of the place are united in the stand they have taken up, and the name of the fourth is only absent from the letter because he is not a member of the Branch. Unity is strength ! and in this the action of the Inverell doctors may be looked upon as an object lesson to practitioners throughout Australia. Unfortunately, petty jealousies and differences, which too frequently occur, especially in country towns, are often allowed to interfere with united action, and so the profession is not able to successfully cope with many of the evils threatening it. We venture to think that, if instead of brooding over grievances, many of them imaginary, until they grow to undue magnitude, men would only approach one another in the right spirit, that a few minutes conversation would result in the removal of a great deal of bitterness and heart-burning. It is more than ever necessary that the members of the profession should stand shoulder to shoulder in maintaining their rights, and in striving to combat some of the evils that have grown up around club practice. There is probably no subject that so vitally affects the medical profession at the present time as the abuses of the Club system. The time is fast approaching when the whole system of contract medical practice will have to be fought out and placed on a more satisfactory basis, as in many cases the system now existing is not satisfactory to either doctor or patient. It would be far more satisfactory if some reduced fee could be charged to people of limited means for each consultation or visit, as the doctor would then know that no unnecessary calls were being made upon his time, and the patients would receive better attention than at present The medical benefits of the friendly societies were intended solely for those unable to pay full medical fees, and, while confined to legitimate members, worked very well. Now, unfortunately, some of the recognised friendly societies are trying to exact more and more from their medical officers, while other societies, such as the Australian Natives Association, are trying to run in members of quite a different class, and without any wage limit. It is, therefore, very essential that at this time the profession should show a united front in resisting the many and increasing number of abuses with which it is threatened. The Sydney and Suburban Provident Medical Association has filled a much needed want in Sydney, and similar institutions in some of the country towns would, we think, be preferable to private lists. We ask for the sympathy and co-operation of the profession throughout Australia for the doctors at Inverell who are making so firm a stand against such an undesirable agreement, and trust that no reputable practitioner will be found willing to undertake the duties.

MEDICAL OFFICERS TO THE GENERAL HOSPITAL, CHILLAGOE, QUEENSLAND.

A CORRESPONDENT has sent us a printed circular signed by ten contributors to the funds of the above Hospital (which apparently is nothing more than a Club) proposing that the rules of the Institution should be altered and added to as follows :—

GOVERNMENT.

That rule No. 4 read as follows :—The government of the institution shall be vested in Governors and Contributors of £1, irrespective of whether it has been contributed by a single donation or by monthly instalments through the office of any Company or Society by whom they may be employed, or of which they are members. Such contributors shall alone be entitled to vote or to take any part in the administration of affairs.

DUTIES OF EACH MEDICAL OFFICER.

That the following be substituted for rule 16 :—He shall provide all instruments necessary in the discharge of his duties.

He shall attend all subscribers residing within one mile of the Smelters or the Post Office, and anywhere on the railway line when called upon to do so, without regard to time or weather, and, with the consent of the patient, shall have power to cause his removal to the Hospital if necessary. The doctor shall only attend patients at a distance down or up the railway line in urgent cases. All messages, except in urgent cases, must be left at the doctor's residence before 10.30 a.m.

He shall examine all persons entering the Hospital, and ascertain their fitness for admission.

He shall examine and prescribe for outdoor patients at any place selected by the Committee from 9.30 to 10.30 a.m., and from 6.30 to 8 p.m. daily, Sunday excepted ; on the latter day, one hour at any time selected by the medical man. Accidents and urgent cases must be attended at any hour.

He shall carefully examine all drugs, chemicals, and surgical appliances brought into the Hospital, both as to quality and quantity, and report any defect in either respect to the Visiting Committee.

He shall insert in a book kept for the purpose the names of all indoor patients, state dates of admission, discharge, or death in each case, the nature of the disease, and its termination or issue.

Doctors and chemists shall be appointed for the term of twelve months. If any doctor or chemist wishes to withdraw from his position he must give the Committee of the Hospital Union three months' notice, and if they wish to dispense with his services they shall likewise give three months' notice.

Tooth-pulling shall be included in the doctor's duties.

He shall have the immediate superintendence of all wardsmen and nurses, and shall preserve order and sobriety in the establishment.

He shall see that all medicines ordered by him are accurately and promptly dispensed, and also have prepared, and at all times in readiness, such medicines as are required for the ordinary practice of the Hospital. Doctors are not expected to provide trusses or splints.

In any case of insubordination or default of duty on the part of any wardsman or nurse, he shall immediately report to the Visiting Committee.

He shall be responsible for the performance of all operations of surgery. But in serious cases, if recommended by him, the Committee shall endeavour to procure the necessary assistance.

The Committee shall have power to grant him twenty-four hours leave of absence in extreme cases; but should that time be exceeded he shall have to provide a competent substitute, subject to the approval of the Committee; and in no case whatever shall he absent himself from his duties without the consent of the Committee.

He shall have the sole control of stimulants in the Hospital, and shall account for their use in a book kept for that purpose.

Complaints from any officer of the Union, if made within seven days of such occurrence, will be dealt with by the Committee, and their decision will be binding and final on all parties.

No medical officer of the Union shall be compelled to attend patients after confinements and miscarriages for a period of two months, except he has attended such confinement, in which case the period of exemption from Union attendance shall be fourteen days.

No doctor shall become an officer of the Union without the consent of the Committee.

The doctor shall attend professionally, during their sickness, all members and their wives (except in accouchements and miscarriages), and also on their children (step children if resident with them) or children legally adopted, provided all of the said children shall be under the age of 18 years and married, and also on the widowed mother of single members, if residing with and dependent on them. The doctor shall also examine all candidates for admission to any of the lodges in the Union, and furnish them and their wives with certificates of health when necessary without charge. Any person admitted to the Hospital, who is not a subscriber to the Union, shall be treated by any medical officer of the Union free.

Medical Officers.

That the following be substituted for rule 18:—

The Committee shall have power to appoint any medical practitioner resident in the district as one of the medical officers of the Hospital. Contributors may place their names on the list of any of the medical officers they please, and the rate of remuneration of medical officer to be fixed by the Committee in proportion to the number of contributors' names on his list.

We understand these proposed alterations have already been published in the local paper, the *Chillagoe Miner*. Some alterations are also proposed in the matron's duties; one of the chief being that she shall "take active steps to destroy all vermin!"

It is not stated what remuneration each medical officer is to receive for undertaking the multifarious duties enumerated in the proposed alterations. According to the rules (as printed), he is not to attend children under 18 *unless they are married!* This is certainly a departure from the usual conditions! We should hope the Committee will not find many reputable practitioners willing to accept the post of medical officer under such degrading conditions. It certainly savours badly for the future of the profession in these States when lodges seriously propose such restrictions for their medical officers. It will be seen from Rule No. 4 as proposed that anyone who subscribes £1 a year—no matter what his financial position may be—can exact the services of the medical officer, or, perhaps, *slave* would be the more appropriate term!

THE BATTLE OF THE CLUBS.

(To the Editor of the Australasian Medical Gazette.)

Sir.—We, the undersigned medical practitioners of Inverell, N.S.W., members of the N.S.W. Branch of the British Medical Association desire to bring under the notice of the N.S.W. Branch of the British Medical Association the following matter, and request the co-operation of the members in the contest between club and doctors now going on. Briefly the facts are:—

We have acted as medical officers of the Loyal Welcome Lodge of Oddfellows, Manchester Unity, Inverell, for many years, under an agreement which, compared with the usual lodge agreement was fair. The following are the essentials of its chief clauses.

"Doctor shall receive 26s per annum per member for attendance and medicine.

"Doctor shall attend member, his wife, and children, latter up to 16 years (males), up to 20 years (females) under parental roof.

"Doctor shall be paid £2 for confinements and miscarriages.

"Doctor shall be paid for all operations requiring anæsthetics.

"Doctor shall receive mileage at the rate of 5s. per mile beyond one mile.

"Doctor shall not be liable for another doctor's fee for attendance upon a lodge patient when lodge doctor was otherwise professionally engaged."

The lodge up to the beginning of this year averaged about 130 members. During this year active canvassing for new members has been going on. Now the lodge is about 200 strong. This accession of strength evidently suggested the possibility of exacting more favourable terms for medical attendance. Accordingly a new agreement was prepared, without reference to us, for our signatures. The following are chief additions and alterations required by the new agreement.

"Doctor shall attend males of *any age*—children or adopted children of a member—if incapable of working for themselves.

"Doctor shall attend *unmarried female relatives of any age* if living with and supported by a member.

"Doctor shall attend widowed mother of unmarried member.

"Doctor shall attend brothers and sisters of unmarried member, if living with such member and if under 16 or 20 years of age respectively.

"Mileage to be reduced from 5s. to 2s. 6d. per mile —not guaranteed by lodge.

"Doctor shall pay for outside medical aid obtained by a member even if lodge doctor were otherwise professionally engaged.

"Doctor shall perform most operations free of charge.

"Complaints made by members against lodge doctor to be submitted to an arbitration committee—so called —appointed wholly by the lodge and if sustained the doctor be fined from 5s. to 21s."

This agreement we refused to sign and at once sent in our resignations as lodge surgeons to take effect on December 3rd. The lodge will shortly advertise for a surgeon or surgeons in the leading newspapers of the various states—so they say. The four medical practitioners, who have been practising in Inverell from 7 to 17 years are unanimous in deciding to fight out the matter. If a new man is imported he will not be met in consultation by any of us. The N.S.W. Branch of the British Medical Association which has been put in possession of full details held a large meeting early in September and unanimously resolved to support us and endorse our actions. We are opening a "list" embracing only those members at present on our lodge medical lists, and only those with *under £200 per annum income*. These men, and these only, will be attended on terms similar to those of the old lodge agreement. We are not extending the list to patients outside the lodge. The list system independent of lodge control, has been in successful action for several years in Newcastle. We, with confidence, request your branch to do all in its power as a body and as individuals to deter any medical man from accepting the post should it be advertised in your State. The Grand Secretary of the N.S.W. Lodges wired the local branch not to give way on the £200 income limit question, so we now call on our brothers of the British Medical Association to support us.

Faithfully yours,

THOMAS LANE.
WILLIAM J. MORTON.
R. M. KINROSS.

Inverell, N.S.W.,
September 28th, 1901.

THE MOTOR IN MEDICAL PRACTICE.

By ALFRED FOSTER, L.R.C.P., M.R C.S. WAHROONGA, NEAR SYDNEY.

◆

IN order to reply to the many enquiries made since I first used a motor in my practice I am publishing a *resumé* of my experience.

The motor is a 2¾ h.p. de Dion convertible quad or tri-cycle and was imported for me by Messrs. Bennett and Wood. It is comfortable on good roads as a tricycle, but rough on bad, very comfortable as a "quad" for the passenger in front but less so for the driver. Steering and control are perfect. The pace varies from 3 to 30 miles per hour, 16 miles an hour is ample. The cost of running is from ⅛ to ½ penny per mile according to the condition of the road. The spirit cost etc., I will discuss later. The driving is perfectly simple and easily learnt. The diagnosis of faults constitutes the real difficulty in dealing with any motor. I have been delayed even an hour, but when discovered, the fault was easily put right in five minutes; experience is necessary. The machine in good weather, with this reservation is perfectly reliable, but in bad weather requires many improvements and modifications. I had no trouble till the bad weather began.

Having collected a mass of information on the subject, I will give a summary of the points to be considered before making a purchase.

The idea is undoubtedly correct and in England and the Continent is a practical success. In Australia it is quite otherwise, till the machines are built for the purpose. Do not be misled by isolated experiences, nine months trial and success are necessary before any type of motor can be said to be suitable; because—

1. *Frame and Wheels.*—Anyone reading the report of the 1,000 mile trial of the Automobile Club will appreciate that the chief source of failure being from breaks of wheels and axles (not the motor proper) it would be useless to expect a motor built for the English market to stand on Australian roads. I have used English built dogcarts and carriages; everything goes well for nine months, and then the axles break and there is endless trouble. This is because the road gauge is about four inches more than the English; the hump between the wheels acts as a wedge and something must go. A motor must be either five feet two inches gauge, or else less than 48 inches, which is the average size of the hump between the ruts. A few inches more or less converts the road into a wedge that ruins the wheels and axles.

2. *Engine.*—The spirit costs in Sydney just double what it costs in England, and there is freight to be added. I am informed that two shillings per gallon, and carriage from Sydney, is likely to be the minimum. Freight is the same as for kerosene. Thus, a six horse power engine, such as is now being sold in Sydney, costs 1½d. per mile to run for spirit alone.

Therefore, the engine must be of the smallest horse power compatible with efficient work, or the cost of running soon becomes prohibitive. I have no intention of recommending any particular engine. A representative of the firm who imported mine is now in England, and I have asked him to bring me out the most suitable engine he can find. I have also detailed my experiences to him, and thus hope early next year to have a thoroughly reliable machine for all weathers.

3. *Cost of Runnimg.*—I have prepared a comparison of my present motor and my horse. The capital cost of horse, harness, etc., £67 10s. The capital cost of motor, etc., £160. Allow a 10 per cent. sinking fund. My average verified runs for six months, amount to 80 miles per week, it is actually more, say 100 miles.

Horse keep, repairs, etc., 16s. per week, not including wages, but including all travelling that can be done by road; sinking fund, 2s. 7d., total 18s. 7d.

Spirit 1 gal. to 80 miles at 2s. 3½d., say 3s. Sundries, lubricating oil and repairs, 5s. Sinking fund, 6s. 6d., total 14s. 6d

I use a bicycle a good deal but my horse costs me none the less. Except for sinking fund my motor costs me nothing when not in use.

4. If prepared to take the trouble anyone can understand how to manage a motor. A medical man especially

It doubles my earning capacity.

BRITISH CONGRESS ON TUBERCULOSIS FOR THE PREVENTION OF CONSUMPTION.

COPY of Resolutions passed at the General Meeting of the above Congress, held at Queen's Hall, on Friday, 27th July, 1901, as follows:—

1. That tuberculous sputum is the main agent for the conveyance of the virus of tuberculosis from man to man, and that indiscriminate spitting should therefore be suppressed.

2. That it is the opinion of this Congress that all public hospitals and dispensaries should present every patient suffering from phthisis with a leaflet containing instructions with regard to the prevention of consumption, and should supply and insist on the proper use of a pocket spittoon.

3. That the voluntary notification of cases of phthisis attended with tuberculous expectoration, and the increased preventive action which it has rendered practicable, has been attended by a promising measure of success, and that the extension of notification should be encouraged in all districts in which efficient sanitary administration renders it possible to adopt the consequential measures.

4. That the provision of sanatoria is an indispensable part of the measures necessary for the diminution of tuberculosis.

5. That in the opinion of this Congress, and in the light of the work that has been presented at its sittings, medical officers of health should continue to use all the powers at their disposal, and relax no effort to prevent the spread of tuberculosis by milk and meat.

6. That, in view of the doubts thrown on the identity of human and bovine tuberculosis, it is expedient that the Government be approached and requested to institute an immediate inquiry into this question, which is of vital importance to the public health and of great consequence to the agricultural industry.

7. That the educational work of the great national societies for the prevention of tuberculosis is deserving of every encouragement and support. It is through their agency that a rational public opinion may be formed, the duties of public health officers made easier of performance, and such local and State legislation as may be requisite called into existence.

8. That this Congress is of opinion that a permanent international committee should be appointed—(*a*) to collect evidence and report on the measures that have been adopted for the prevention of tuberculosis in different countries; (*b*) to publish a popular statement of these measures; (*c*) to keep and publish periodically a record of scientific research in relation to tuberculosis; (*d*) to consider and recommend measures of prevention. This Congress is further of opinion that all international and great national societies whose object is the prevention of tuberculosis should be invited to co-operate.

9. That in the opinion of this Congress, overcrowding, defective ventilation, damp and general insanitary conditions in the houses of the working classes diminish the chance of curing consumption and aid in predisposing to and spreading the disease.

10. That the following question be submitted for the consideration of the next Congress on tuberculosis:—The constitutional conditions of the individual which predispose to tuberculosis, and the means by which they may be modified.

11. That, while recognising the great importance of sanatoria in combating tuberculosis in all countries, the attention of Government should be directed to informing charitable and philanthropic individuals and societies of the necessity for anti-tubercular dispensaries as the best means of checking tubercular disease among the industrial and indigent classes.

THE INTERCOLONIAL MEDICAL CONGRESS OF AUSTRALASIA—SIXTH SESSION.

TO BE HELD IN HOBART, TASMANIA, FEBRUARY 17TH TO 22ND, 1902.

PATRON: His Excellency The Right Honourable Earl of Hopetoun, P.C., K.T., G.C.M.G. Vice-Patrons: The Honourable Sir James Wilson Agnew, M.D., K.C.M.G., Hobart; Sir Thomas N. Fitzgerald, F.R.C.S. Irel., K.C.B., Melbourne. With the special countenance and support of The Hon. N. E. Lewis, C.M.G., Premier of Tasmania, and His Majesty's Ministers in Tasmania.

President of Congress: Richard Stonehewer Bright, M.R.C.S. Eng., Hobart. Retiring President: John Thomson, M.B., C.M. Edin., Brisbane. Vice-Presidents of Congress (past Presidents): Joseph Cooke Verco, M.D. Lond., F.R.C.S. Eng.; Sir Thos. Naghten Fitzgerald, Kt, F.R.C.S.I.; P. Sydney Jones, M.D. Lond., F.R.C.S. Eng.; Ferd. Campion Batchelor, M.D. Durh.; John Thomson, M.B., C.M. Edin., Brisbane. Treasurer: Hon. Gaml. H. Butler, M.R.C.S. Eng., M.L.C., Macquarie-street, Hobart. General Secretary: Gregory Sprott, M.D Glasg., Macquarie-street, Hobart.

SECTION I.—MEDICINE.

President: James Jamieson, M.D., M.Ch., Lecturer on Medicine, University of Melbourne. Vice-Presidents: A. Jarvie Hood, M.B., C.M. Glasg., Sydney; Geo. T. Howard, B.A., M.D. Melb., Melbourne; Walter Fell, M.A. M.D. Oxon., Wellington; H. Swift, M.D. Cantab., Adelaide; Peter Bancroft, M.B., M.Ch. Syd., Brisbane; T. H. Lovegrove, M.R.C.S. Eng., Perth. Secretaries: A. H. Clarke, M.R.C.S. Eng., Macquarie-street, Hobart; Chas. Parker, M.B. Edin., St. John-street, Launceston.

Section II.—Surgery.

President: Louis Edward Barnett, M.B., F.R.C.S. Eng., Lecturer on Surgery, University of Otago, N.Z. Vice-Presidents: Wm. Chisholm, M.D. Lond., M.R.C.S. Eng., Sydney; G. A. Syme, M.B. Melb., F.R.C.S. Eng., Melbourne; T. Hope Lewis, M.R.C.S. Eng., Auckland; Frank Tratman, M.D. Lond., M.R.C.S. Eng., Perth; G. Herbert Hopkins. F.R.C.S. Eng., L.R.C.P. Lond., Brisbane; Benjamin Poulton, M.D., M.R.C.S. Eng., Adelaide. Secretaries: F. J. Drake, M.B. Melb., Harrington-street, Hobart; Geo. E. Clemons, M.D. Edin., Cameron-street, Launceston.

Section III.—Diseases of the Eye, Ear, Throat, and Nose.

President: T. K. Hamilton, M.D., F.R.C.S.I., Victoria Square, Adelaide. Vice-Presidents: Thos. S. Kirkland, M.D. Glasg., F.R.C.S. Edin., Sydney; Chas. L. M. Iredell, M.R.C.S. Eng., L.R.C.P. Edin., Melbourne; Wm. M. Stenhouse, M.D., M.Ch. Glasg., Dunedin; Edward L. Gault, M.B. Melb., Melbourne; A. Francis, M.B., B.Ch. Cantab. Brisbane; Henry T. Kelsall, M.D. Lond., M.R.C.S. Eng., Perth. Secretaries: C. E. Barnard, M.D. Aber., Macquarie-street, Hobart; G. H. Hogg, M.D. Edin., George-street, Launceston.

Section IV.—Midwifery and Diseases of Women.

President: Ralph Worrall, M.D., M.Ch., Gynæcologist, Sydney Hospital, Sydney. Vice-Presidents: H. C. Taylor Young, M.D., M.Ch., Sydney; F. W. W. Morton, L.R.C.P. & S., L.M. Edin., Melbourne; Arthur F. Davenport, M.B. Lond., M.R.C.S. Eng., Melbourne; A. J. H. Saw, M.D. Cantab., Perth; F. Glynn Connolly, M.R.C.P. Lond., M.R.C.S. Eng., Brisbane. Secretaries: J. Edgar Wolfhagen, M.B. Edin., Macquarie-street, Hobart; J. G. Johnson, M.R.C.S. Eng., L.R.C.P. Lond., Evandale.

Section V.—Public Health

(Including State Medicine, Forensic Medicine, Psychological Medicine and Demography).

President: D. Astley Gresswell, M.A., M.D., D.P.H. Cantab., President Board of Health, Victoria. Vice-Presidents: F. Tidswell, M.B. Syd., D.P.H. Cantab., Sydney; Thos. Cherry, M.D., M.S., Melbourne; B. Burnett Ham, M.R.C.S. Eng., L.R.C.P. Lond., D.P.H., Brisbane; A. C. F. Halford, M.D. Melb., Brisbane; T. Mailler Kendall, L.R.C.P. & S. Edin., Sydney; J. V. McCreery, L.R.C.S. Irel., Melbourne. Secretaries: W. W. Giblin, M.R.C.S. Eng., Macquarie-street, Hobart; J. T. Wilson, M.B. Eng., Cameron-street, Launceston.

Section VI.—Anatomy, Physiology, Pathology (including Bacteriology and Pharmacology.

President: J. H. Scott, M.D., C.M., Professor of Anatomy and Physiology, University of Otago, N.Z. Vice-Presidents: Sydney Jamieson, B.A. Syd., M.B., M.Ch. Edin., Sydney; Edward Jennings, M.R.C.S. Eng., L.R.C.P. Lond., Christchurch, N.Z.; J. Atkin Wheeler, M.B. Lond., M.R.C.S. Eng., Toowong, Queensland; W. R. Cavenagh Mainwaring, M.B., B.Ch., Adelaide, S.A.; W. P. Seed, M.R.C.S. Eng., L.R.C.P. Lond., Coolgardie, W.A. Secretaries: E. T. Macgowan, M.B. Melb., General Hospital, Hobart; J. Ramsay, M.B. Melb., General Hospital, Launceston.

It has been decided to hold the sixth session of the Congress in Hobart from 17th to 22nd February, 1902.

General Discussion.—A general discussion will take place on the subject of Cancer. The discussion, which will be opened by Professor H. B. Allen, Melbourne University, promises to be one of the most important and interesting features of the Congress.

Australasian Medical Association.—A motion will be moved, that the time is opportune to form an Australian Medical Association with a permanent Council, in lieu of the present Intercolonial Medical Congress of Australasia. Members wishing to speak should notify the General Secretary at their earliest convenience.

Circulars have already been sent to medical practitioners in the various States and New Zealand, and the response to invitations to membership has, so far, been encouraging. Circulars have also been issued by the sectional secretaries soliciting papers, and it is urgently desired by the executive committee that medical men will enrol without delay, and that members proposing to contribute papers will forward notice of their intention as early as possible, together with titles of papers, to the sectional secretaries or to the local secretary of their State or colony. The work of the sectional secretaries will be materially assisted if members will forward short abstracts of their papers before the last week in January, and also provide the secretaries with a type-written copy of their papers, when Congress meets, for purposes of publication. Members intending to be present at the Congress, are requested to inform the general secretary to that effect at their earliest convenience, and should apply ot once to the local secretary for their membership tickets.

The railway authorities of Victoria, New South Wales, South Australia, West Australia, and Queensland have agreed to allow single fares for the double journey to members (and one lady) attending Congress, conditionally that at least six persons avail themselves of the concession. New Zealand promises excursion fares. To obtain the above concession it will be necessary for members to communicate with the local secretary of their State or colony, who will issue certificates. The Tasmanian Government has promised half-fares over all government railways to members and their wives. The production of membership ticket will be necessary to obtain the concession on Tasmanian railways.

Steamship Reductions.—A.U.S.N. Co. grants 20 per cent reduction on return fares for members and their wives. The Union S.S. Co. and Huddart Parker Co. will allow 10 per cent. reduction on return tickets. In order to secure these reductions it will be necessary for members to present their Congress tickets countersigned by the Local Secretary of their State.

Executive Committee: The President, Treasurer, General Secretary, C. E. Barnard, M.D.; A. H. Clarke, M.R.C.S. Eng.; E. L. Crowther, M.D.; E. J. Crouch, M.R.C.S. Eng.; F. J. Drake, M.B.; W. W. Giblin, M.R.C.S. Eng.; E. W. J. Ireland, M.B.; D. H. E. Lines, M.B.; E. T. Macgowan, M.B.; R. G. Scott, M.B.; C. C. Walch, M.B.; J. E. Wolfhagen, M.B.

District Members of Executive Committee. Geo. M. Anderson, M.B., Franklin: G. E. Butler, M.R.C.S Eng., Zeehan; G. E. Clemons, M.D., Launceston; G. H. Hogg, M.D., Launceston; C. Joyce, M.B., Beaconsfield; W. G. Maddox, M.R.C.S. Eng., Launceston; J. M'Call, M.B., Ulverstone; W. H. Macfarlane, M.D., New Norfolk; Chas. Parker, M.B., Launceston; C. J. Pike, M.B., Launceston; J. Ramsay, M.B., Hospital, Launceston.

Local Secretaries.—South Australia: J. B. Gunson, M.B., Adel., Angas-street, Adelaide. Victoria: Geo. Adlington Syme, M.B. Melb., F.R.C.S. Eng., 82 Collins-street, East, Melbourne. New South Wales: Philip Ed. Muskett, L.R.C.P. and S., Edin., 143 Elizabeth-street, Sydney. New Zealand: Professor

John H. Scott, M.D. Edin., The University of Otago, Dunedin. West Australia: Athelstan J. H. Saw, M.D. Cantab., St. George's Terrace, Perth. Queensland: Wilton Love, M.B. Edin., Wickham Terrace, Brisbane.

MEDICAL NOTES.

FEES FOR OPERATIONS IN THE PRIVATE WARDS OF PUBLIC HOSPITAL.

THIS matter has lately been brought prominently before the public in Melbourne through Dr. M. U. O'Sullivan having sued two different senior-constables of police in the County Court for fees for operations performed in the private wards of St. Vincent's Hospital, Melbourne, of which institution Dr. O'Sullivan is one of the honorary surgeons.

In the first case the Doctor secured a verdict, but in the second case the verdict was entered for the defendant, with costs. Judge Molesworth, who heard the cases, is reported in the *Argus* to have said "that the fact that the operation was to be performed in a charitable institution reversed the ordinary practice, and placed the onus on the plaintiff of proving that there was a contract to pay. He was not satisfied that that had been done, and he thought that the defendant would more accurately remember the circumstances than the plaintiff, who had a multiplicity of such engagements."

A case possessing pathetic features was before Judge Molesworth in the County Court (Melbourne) on September 16th, when Gertrude Mary Pincombe, a young lady who had been a patient in the Kew Lunatic Asylum, sued James V. M'Creery, late medical superintendent at that institution, for £25 damages. The plaintiff desired a withdrawal of the words that she was subject to delusions, and to pay her £25 for the wrong which the use of the words did to her. When the case was called on plaintiff, who was standing in court, said she hoped justice would be done to her, although she did not know much about the law. She had no witnesses. Dr. M'Creery said that Miss Pincombe had been his patient for about four months. The plaintiff asked him why he said he had an influence over her mind. The witness denied that he ever said so. Judge Molesworth asked the witness if she had any witnesses to call, and she replied that she would have had them if she had thought Dr. McCreery would have denied that he said she was under his influence. Some letters written by a lady doctor in a kindly strain, advising plaintiff as to the best means of restoring her health, were interpreted by the latter as evidence in support of her case against Dr. M'Creery. The letters were, by consent, read in court, after which the plaintiff was nonsuited. No costs were asked for.

His Excellency the Governor of South Australia, has been pleased to appoint the following gentlemen to be Medical Officers to attend to the destitute persons and aborigines within the undermentioned districts, viz.:—Angaston, C. W. Purves; Barossa (West Ward), F. W. H. Popham; Mount Crawford, J. P. Maher; North Rhine, C. W. Purves; Rapid Bay, A. J. Meikle; South Rhine, J. S. Proctor; Tungkillo, J. S. Proctor; Yatala South, M. Jay.

A report laid on the table of the New South Wales Legislative Assembly recently, stated that the number of births registered during 1900 was 37,146. The number of persons vaccinated was 911, of which 908 were reported as successful. Of the successful cases 25 were of children under 1 year; 99 of children between 1 and 5 years; 435 of children between 5 and 10; and 349 of persons above 10 years of age. Dr. Tidswell, who supplies the report, says: "It will be seen that very few of the children born during the year were vaccinated, and a glance at the percentage for past years will show that very little attention is paid to this matter. We are practically an unvaccinated community."

A PROPOSED HOSPITAL FOR CONSUMPTIVES IN SYDNEY.

A public meeting was held in the Vestibule of the Town Hall, Sydney, on Monday, 30th September, ult., under the presidency of the Mayor of Sydney (Sir James Graham, M.D.) to advocate the establishment of a hospital for the treatment of consumptives. A large number of medical practitioners was present, in addition to many prominent citizens. Resolutions in favour of (1) the establishment of such an institution; (2) appointing a deputation to wait upon the Premier; and (3) advocating the formation of a league to further the objects in view, were carried unanimously.

MILITARY INTELLIGENCE.

NEW SOUTH WALES.

War Honours.—Recent cablegrams announce that Major William L'Estrange Eames, B.A., M.B., B.Ch., Univ., Dublin, has been created a Companion of the Most Honourable Order of the Bath (C.B.), and Lieutenant Alfred Herbert Horsfall, M.B., Ch.B. Univ. Melbourne, a Companion of the Distinguished Service Order (D.S.O.) These two officers were on active service in South Africa with the New South Wales Army Medical Corps. The total honours received by the officers of the corps, now amount to eight, viz.: Two C.B.'s, one V.C., and five D.S.O's.

NEW ZEALAND.

His Excellency the Governor has been pleased to approve of the following promotion:—*New Zealand Volunteer Medical Staff.* Surgeon-Captain Alfred Osborne Knight to be Surgeon-Major. Date of commission, 19th July, 1901.

THE LATE COLONEL FETHERSTON, M.D.

A MILITARY FUNERAL.

The remains of the late Colonel G. H. Fetherston, who formerly held the position of Chief Medical Officer of the Victorian Military Forces, were buried in the St. Kilda Cemetery, on September 16th ult., with full military honours. The respect in which the late Colonel was held was shewn by the large number of members of the medical profession and well-known citizens who attended the funeral. The military part of this funeral was the largest seen in Melbourne for many years.

CHANGE OF ADDRESS, ETC.

BARRETT, Dr. W. A. N., late of Portarlington, has succeeded to Dr. Forsyth's practice at Mansfield, Vic.

BATCHELOR, Dr. F. S. jun., has returned from England, and commenced practice at Dunedin, N.Z.

BEAN, Dr. H. K., of Wallsend, N.S.W., has returned from active service in South Africa.

COPE, Dr. H. R., has removed from Randwick to Glen Innes, N.S.W.

DEANE, Dr. E W., has removed from Walhalla to Carisbrook, Vic.

DEVITT, Dr. R. E., a recent arrival, has settled at Ravenswood, Q.

Dick, Dr. J. Adam, of Randwick, Sydney, has returned from South Africa, where he was on active service with the N.S.W. Army Medical Corps.

Forsyth, Dr. W. A., has removed from Mansfield to Koroit, Vic.

Freyer, Dr. J. K., has commenced practice at Ashfield, near Sydney.

Ick, Dr. E. T. J., late of Scottsdale, Tas, has removed to Leonora, W.A.

Johnston, Dr. A. A., has removed from Penola, S.A., to Jarrahdale, W.A.

Nolan, Dr. H. Russell, has commenced practice at 175 Macquarie Street, Sydney, as a specialist in the diseases of the ear, nose, and throat.

Thurstan, Dr. E. P., has removed from Perth to Lawlers, W.A.

Walker, Dr. W. J., has removed from Port Pirie, S.A., to Mitchell, Q.

MEDICAL APPOINTMENTS.

The following Medical Appointments are announced.

Atkins, T. E., L.A.H., to be Public Vaccinator for the Midland District (Vic.)

Baldwin, G. P., L.R.C.S. Edin., to be Public Vaccinator for the Shannon District (N.Z.)

Barrett, W. A. H., L.R.C.P., to be Officer of Health for the Shire of Mansfield (Vic.)

Bruce, C. W., M.B., to be Government Medical Officer and Vaccinator, at Candelo (N.S.W.)

Cahill, Thos, M.D., to be a member of the Board of Dental Examiners, Wellington (N.Z.)

Collins, W. E., M.B., to be a member of the Board of Dental Examiners, Wellington (N.Z.)

Cookson, Joseph, M.B., to be Officer of Health for the Shire of Wimmera (Vic.)

Cowen, B. S., M.B., to be Public Vaccinator for the Northern District (Vic.)

Cudmore, Arthur Murray, M.B. *et* Ch.B. (Adel.), F.R.C.S. Eng., to be Hon. Assistant Surgeon to the Adelaide Hospital.

Davis, W., M.B, to be Public Vaccinator for the South Eastern District (Vic.)

Erson, Dr. C. G. Leger, to be Public Vaccinator at Peak Hill (W.A.)

Gmelin, O. F., M.D., to be Officer of Health for the Shire of Healesville (Vic.)

Hamilton, T. K., M.D., F.R.C.S.I., has been re-appointed director of the local board of South Australia of the Australian Mutua Provident Society.

Healey, Dr. W. J. to be Public Vaccinator at Leonora (W.A.)

Howse, N. R., F.R.C.S. Eng., V.C., to be Visiting Surgeon to the gaol at Orange (N.S.W.)

Johnson, Edward Angas, M.B. *et* Ch.B. (Adel.), M.D. Göttingen, to be Hon. Assistant Physician to the Adelaide Hospital.

Kerr, Jas., M.B., to be Public Vaccinator for the South Eastern District (Vic.)

Lawes, C. H. E., M.B., to be a member of the Licensing Court at Cobar, (N.S.W.)

Leschen, Dr. H. A., to be Public Vaccinator at Jarrahdale W.A.

Lovegrove, J. F., M.R.C.S., to be Government Medical Officer and Vaccinator at Rylstone (N.S.W.)

McGowan, A. G., M.B., to be Public Vaccinator for the Midland District (Vic.)

Pollen, Henry, M.B., to be a member of the board of Dental Examiner, Wellington (N.Z.)

Pooler, Edward Leslie, M.D., L.K.Q.C.P.I., to be Medical Officer to the Destitute Poor and Aborigines of the district of Stirling (S.A.)

Rogers, R. S., to be a member of the Board of Governors of the Public Library of S.A.

Rowan, Dr. Thos., to be President of the Victorian Medical Board.

Strang, Thomas, L.R.C.P., to be Public Vaccinator for the Metropolitan District (Vic.)

Thomas, W. D., M.B., to be Acting Health and Medical Officer at Bundaberg (Q.)

Thurstan, E. Paget, to be District Medical Officer at Lawlers (W.A.

Wilson, H. B., M.R.C.S. Eng., to be Government Medical Officer and Vaccinator at Germanton (N.S.W.)

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

The following persons have been duly registered as legally qualified medical practitioners in their respective states :—

NEW SOUTH WALES.

Bridges, Ashley Colston, Lic. Soc. Apoth. Lond. 1878 ; Mem. R. Coll. Surg. Eng. 1880.

Kelly, Daniel, M.B., Univ. Melb. 1899.

MacCarthy, Charles Edward De Lacy, M.B. Trin. Coll., Dubl 1873.

McLean, Donald, M.B. Univ. Melb. 1901.

For Additional Registration.

Olver, William Reath, M.Ch. Univ. Syd. 1901.

Pockley, Eric Osbaldiston, M.Ch. Univ. Syd. 1901.

NEW ZEALAND.

Batchelor, Ferdinand Stanley, M. & F.R.C.S. Eng., L.R.C.P. Lond.

McKay, William, M.B., Bac. Surg. Edin. ; F.R.C.S. Edin.

Vowell, Charles Martin, M.R.C.S. Eng. 1872 ; L.R.C.P. Lond. 1873; L.S.A. Lond. 1873.

QUEENSLAND.

Devitt, Richard Edmond, M.B., Bac. Surg. 1896, Royal Univ. Irel.

Walker, William John, M.B., Mast. Surg. 1891, Univ. Edin.

Additional Qualification :

MacDonnell, Lucius. G. A., M.D. 1900, Univ. Dubl.

REPUBLISHED.

Doyle, Andrew, Aloysius, Roma, Lic. R. Coll. Surg. Irel. 1884, Lic. K. and Q. Coll. Phys. Irel. 1885. *Additional Qualification.*—Fel. R. Coll. Surg. Irel. 1899.

SOUTH AUSTRALIA.

O'Leary, Arthur Pryce Evelyn, M.R.C.S. Eng. ; L.R.C.P. Lond. 1889.

TASMANIA.

Ponder, Charles Frederick, M.B., C.M. Edin.

WEST AUSTRALIA.

Davy, Thomas George, M.B. ; Ch.B. Oxon. 1894.

Ick, Edwin Theophilus Jesse, M.B. Melb. 1897.

MacColl, Donald Stewart, M.B. ; Ch.M. Glasg. 1886.

Mead, Gertrude Ella, M.B., B.S. Melb. 1897.

BIRTHS AND MARRIAGES.

BIRTHS.

COOLEY.—On the 4th October, 1901, at Oakburn, Redfern, the wife of P. G. Cooley, M.B., Ch.M., of a daughter.

CRAIG.—On the 18th September, at Waratah, 1 King-street, Newtown, the wife of Dr. Gordon Craig, of a daughter.

CROWLEY.—On the 1st September, at Rockville, Beckenham, England, the wife of J. H. Crowley, F.R.C.S., Eng., of a son.

NAYLOR.—On the 4th October, at Smythesdale, Victoria, the wife of R. G Naylor, F.R.C.S., late of West Mersea, Essex, England, of a daughter.

SOMERS.—On the 25th September, at Mornington, the wife of J. L. Edgeworth Somers, L.R.C.S.I., of a daughter.

STUDDY.—On the 3rd September, at Riverstone, N.S.W., the wife of W. B. Studdy, M.B., Ch.M., of a son.

MARRIAGES.

ASHTON-SHORTER—STOCKHAM.—On the 15th August, at Waverley (N.S.W.), by the Rev. Chas. Amos, Dr. H. L. Ashton-Shorter, of Petersham, second son of W. T. Ashton-Shorter, Esq., Solicitor, Sydney, to Helen, youngest daughter, of J. Stockham, Esq., of Braidwood, N.S.W.

M'CREDIE—ALLAN.—On the 4th September, at the Glebe Presbyterian Church, Sydney, by the Rev. Dr. Cleuston, Robert William M'Credie, M.B. Ch M., eldest son of Alexander M'Credie, Ultimo, to Bessie, youngest daughter of the late R. N. Allan.

Trained Male Nurse seeks engagement in mental or ordinary medical cases. Has had considerable experience in mental nursing, and is accustomed to travelling with patients to Europe and in the Australasian states. Unexceptional testimonials. References kindly permitted to Drs. F. N. Manning, Jarvie Hood, W. E. Warren, T. S. Dixson.

Address : R. T. O'Neill,
68 Crown Street,
Nr. William St.
(Late 17 Leicester St., Sydney.)
Telephone No. 166 William Street.

AUSTRALASIAN MEDICAL GAZETTE.

ORIGINAL ARTICLES.

MUNICIPAL SANITATION IN THE CITY.

By **W. G. Armstrong, M.B., Ch.M. Syd.; D.P.H. Camb., Medical Officer of Health for the Metropolis, Sydney.**

◆

As the business of the evening is to be chiefly social, I have made this paper a short one. Under the circumstances, I think, perhaps, it would be most suitable if I simply describe to you briefly the new sanitary work which has been done in the City since the Reform Council took their seats. If the enumeration sounds bald, I shall hope for your forgiveness on the ground that by condensing I am saving your time.

A few words first as to the municipal sanitary administration of the City before the present year. That might have been for the most part described in negative terms. No disinfection was ever attempted either of dwellings or of goods. No attempt had ever been made to grapple with the smoke nuisance, which has for some years reduced the naturally clear atmosphere of Sydney to a condition almost suggestive of that of London. Common lodging-houses, which are very numerous in the city, were entirely unregulated and were notoriously insanitary and filthy. No systematic house to house inspection of dwellings had ever been attempted. Finally, though it appears almost incredible, no record seems to have been kept of any work which had been done by the health department of the City.

For all these sins of omission no blame is to be laid at the door of my predecessors in the office of City Health Officer. They were all gentlemen in private practice, who merely received from the City Council a small salary as a sort of retaining fee, and gave their advice and services when required. They had no administrative control over the health department. The one direction in which there appears to have been some activity was that dealing with dilapidated dwellings, many of which were from time to time condemned under the provisions of the City of Sydney Improvement Act.

The first step towards a better state of matters was to procure an efficient executive staff of sanitary inspectors. By a clause in the Sydney Corporation Amendment Act, which was pushed through Parliament under the influence of the plague panic last year, sanitary inspectors in the City are nominated by the municipal authority, and appointed by the Government, while their salaries are paid half by Government and half out of the City chest. A sufficient number of officers, most of whom had passed the examination test of the London Sanitary Institute, were appointed and told off to various duties. The whole City was divided into districts, each of which was assigned to an inspector, who is required to inspect every house in that district at least twice in each year, and to record every sanitary fact about each dwelling at the time of inspection. In every case where defects or faulty sanitary conditions are observed, action is taken against the responsible person, whether occupier or owner, to apply the appropriate legal remedy.

Similar methods were put in force in more specialised departments. An inspector was told off for common lodging houses. Already he has visited over a thousand, and reported on them. They have been required to register under the Public Health Act, and the keepers have been forced or are being forced to put their houses into a sanitary condition. The state of these places is now greatly improved, and the improvement is continuing. Five hundred cubic feet of air space for each lodger's bed has been fixed as the minimum standard. Proper ventilation in every room has been insisted on. The keepers have been constrained to strip the dirty paper from their walls and limewash or colour-wash them—a much superior method of treating common lodging house walls to that of paperhanging. Sufficient and decent closet and lavatory accommodation is being insisted on. Keepers are being forced to keep their rooms and beds as free from vermin as is possible in such places. Cleanliness is being enforced generally by regular frequent inspections.

The stables throughout the City were in a very insanitary state. The stall floors were generally constructed of wooden slabs laid on the ground with perfectly open joints. Few of them had any arrangements for drainage whatever, and the stalings and other liquids were allowed to soak into the earth through the interstices of the stall floors. The natural result of this arrangement was that the ground beneath was usually saturated with filth and most offensive. Over two hundred stables have been put into a sanitary condition within the last six months. They now have impervious floors, approved drainage and properly constructed dung-pits. There are still more than the same number which have to be dealt with.

As regards the measures which have been taken to cause the landlords of slum property to improve it to a habitable standard, I think the present City Council have every reason to be proud of what has been done. Fifteen months ago the plague came along and executed in Sydney one of the most inquisitorial inspections a city has ever been subjected to, with the result that a state of affairs was disclosed, as regards slum dwellings, which cannot be described as other than appalling. Indeed, in a year's public health work in the poorest and most thickly populated portion of London—Whitechapel—I never came across dwellings in as bad a condition structurally as some of those I have seen in Sydney slums. Only that our climate has stood our friend, I cannot conceive how the death rate from phthisis and other preventable diseases has stood as low as it has done, when I think of the damp, ill-ventilated, and overcrowded hovels which so many of the people occupied. Apart from structural defects in the dwellings themselves, the arrangements for connecting dwellings with the public sewers were often so faulty as to be a serious source of danger. A few figures showing what has been achieved in this direction since the beginning of the year will perhaps interest you:—

Orders to connect dwellings with the sewers properly	2,481
Already complied with	1,348
Dwellings condemned as being in a condition so injurious to health as to be unfit for human habitation	307
Dwellings made habitable ...	150
Dwellings demolished	105

But the subject most interesting in public sanitation to a meeting of medical men is probably that portion relating to disinfection and the prevention of the spread of infectious disease.

Up to the present the diseases with respect to which active measures of disinfection have been carried into effect are the three notifiable infectious diseases—scarlet fever, diphtheria, and typhoid fever—and phthisis. Information as to the three former reaches the Town Hall in the routine way by notification. With phthisis the case is different. In a general way, through the medium of the press, the medical profession and the public have been informed that disinfection will always be performed free of charge in cases of phthisis, when asked for. This intimation has not met with any great response. On the other hand a daily record is kept at the Town Hall of all deaths registered in the City, and whenever a death from phthisis occurs, the house is visited and disinfection offered. This gets at the houses in which deaths from consumption have occurred, but it does not deal with dwellings infected with tuberculosis which have been left vacant by the removal of the living. And the latter class can only be reached through the voluntary aid and co-operation of the profession. The method employed in disinfecting a dwelling-house is as good a one as could be devised in the absence of a steam disinfecting apparatus. Such an apparatus is now voted by the Council, and it is hoped will be in operation early next year, along with the Moore Park refuse destructor. At present we are without one, and consequently such articles as mattresses, pillows, palliasses, and carpets cannot get what is generally admitted to be the best form of disinfection for such articles. In all other respects I venture to hope we are quite up to date in disinfection of dwellings. We have discarded fumigation, which is at best a tedious, clumsy proceeding, and, I suspect, of inferior value as a disinfecting process. Instead, we spray all surfaces, walls, floors, and furniture with a 1 per cent. solution of formaldehyde delivered under some considerable pressure in a very fine spray. The evidence in favour of formalin as one of the best disinfectants is now overwhelming. Used as a spray it can be applied to the most delicate wall papers without damage, while the capillarity of the paper itself plays a part in securing the better diffusion of the disinfectant. All linen bedding is soaked in a 1 in 1,000 solution of corrosive sublimate. In the present want of a steam apparatus, mattresses, pillows, and carpets are all carefully sprayed with the formalin. When the steam disinfecting apparatus is provided, such goods will, I hope, be dealt with by saturated steam under pressure. That, no doubt, will be a better method than the one now pursued. I do not wish to imply, however, that I consider the present method of disinfecting mattresses, etc., ineffective. Every portion of the surface of such goods is exposed to such a powerful spray of formalin that the surface becomes soaked. With carpets and hangings, probably every thread becomes moistened with the powerful antiseptic. With mattresses and pillows the case is different. One cannot expect that the stuffing material should be saturated. It seems to me, however, that under ordinary circumstances one may fairly expect that the infection being composed of a particulate substance adhering to particles of dust, would not penetrate through sound ticking, and that the thorough disinfection of the latter throughout its thickness is sufficient. When the bedding is unsound, or soiled with discharges, the matter is different. Such cases are always submitted to me for special consideration. Usually the mattress must be destroyed—a course I have only found necessary five times in the disinfection of 140 dwellings.

In speaking of phthisis, I would like to remind you of the action which has been taken by the Council in putting down the filthy custom of expectorating on the footpaths. Already the result of this action has been to cause a great improvement in the decency and cleanliness of the footways of the City. Indirectly, the movement aims at checking the spread of phthisis.

As I indicated in the beginning of this paper, the smoke nuisance is a matter to which considerable attention has been paid by the sanitary department. Methods of observation and record which will stand the test of legal proceedings have been thought out and applied, and prosecutions were commenced under a by-law of the City against several persons who were responsible for the worst offending chimneys. Unfortunately, it was found that the by-law was not workable, and fresh action became necessary under the Smoke Nuisance Prevention Act. Over 100 notices to abate the nuisance caused by smoke from manufacturing chimneys have been served under this Act. Should they not be obeyed, it is intended to prosecute the recalcitrants after the lapse of a fortnight from the issue of the notices.

A most opportune event at this juncture has been the discovery by a clever young engineer in the employ of the Council, of a method of preventing the formation of smoke in steam boiler furnaces, which is so simple and effectual withal that the wonder is that it had never been hit on before. The apparatus has been inspected by several responsible engineers, all of whom have been greatly struck with it. I can vouch that its use effectually does away with the emission of any black smoke from a chimney stack, and it is claimed for it that its use is accompanied by a marked economy of fuel. It will be more than satisfactory if the Town Hall becomes the source alike of the mandate to make the atmosphere of Sydney pure, and of the means by which the performance may most effectually be carried out.

The inspection of the food sold in the City has by no means been neglected. Three inspectors are constantly employed in this work. Large quantities of meat and game coming into the city are regularly inspected. Sixty-seven samples of food, chiefly milk, have been taken for analysis, and as a result, fifty-nine prosecutions for selling adulterated food have been successfully carried to convictions.

These represent some of the main lines of activity of the sanitary department of the Town Hall since the beginning of the present year. One reform, which I have only yet hinted at, but which is of the greatest importance in systematic administrations, consists in the careful recording of all the work which has been done.

In addition to records in book form for each department, the card system of recording the sanitary history of houses has been adopted. One card is allotted to each house, and has a consecutive number attached to it, which is also attached to all papers relating to that house. On the card are also entered all deaths which occur in the house, any infectious diseases notified, any complaints of nuisance and any sanitary defects detected, as well as any legal proceedings taken in respect of the house. The cards are then arranged in drawers according to the streets they represent. By the aid of these cards a complete sanitary history of every house in the City will be accumulated in an easily accessible form. One only has to turn up the card of any house to find all events relating to that house briefly inscribed thereon, with reference numbers to all papers.

[Paper read at meeting of Sydney Metropolitan Medical Association, Town Hall, Sydney, 11th October, 1901.]

NOTES ON SOME CASES OF PUERPERAL ECLAMPSIA.

By H. W. Bryant, L.F.P.S. Glas., L. et L. Mid. R.C.P. et R.C.S. Edin., Williamstown, Victoria.

MRS. A——, *æt.* 28, primipara, had always enjoyed good health up to 3 p.m. on May 29th, 1900, when I was called to her in an emergency, and found her in an unconscious condition, with puffy face, pupils dilated, eyes fixed, and quick running pulse, and heavy, almost stertorous breathing.

I was informed that she had been in a violent fit just before I arrived.

Whilst examining her she had another fit, becoming very black in the face and strongly convulsed. Chloroform was administered, and relieved the patient for the time being; her clothes were removed, and preparations made to put her into a pack; but whilst this was being prepared she had a third fit, the severity of this last attack being again lessened by the administration of chloroform.

A hot pack was then applied, and $\frac{1}{8}$ gr. of pilocarpin subcutaneously injected, and in five minutes she salivated freely, and broke into a profuse perspiration, and vomited sour fluid from the stomach. After this she became partially conscious, and complained of her head.

The patient was about a fortnight off her time, and on examining per vaginam I found the os uteri soft, but not much shortened, although you could pass the finger through the os, and feel the presenting caput. Tried to pass a small Barnes bag through os, but not succeeding, I dilated digitally, as well as I was able, and then gave a rectal injection of chloral hydrat. gr. xv. and potas. bromid. gr. xxv., drew off some urine with catheter, and left her well covered up and partially sensible about 4.15. Examined the urine, and found specific gravity 1018, but almost solid with albumin.

No more fits occurred until 9.15 p.m., and the labour was gradually progressing up to this time, when she again had two fits in quick succession. These were again subdued by inhalation of chloroform, and a rectal injection chloral gr. xxx.

Another pack was applied, and $\frac{1}{10}$ gr. of pilocarpin injected hypodermically, which produced diaphoresis and relieved the patient's symptoms very considerably, the pulse slowing down from 138 and thready to 90 and full in ten minutes.

I examined per vaginam at 10.30, and found the os about the size of a florin and easily dilatable, although the head did not engage in the os, but remained above the pubes.

I then sent for Dr. James, and he agreed that the uterus should be emptied as soon as possible. Whilst the patient was under the influence of ether, a large Barnes' bag was introduced through the os, and blown up to its full size, and removed in this condition.

The long forceps were then applied to the fœtal head, and gentle traction kept up during the pains, which were only deadened by the anæsthetic, but not stopped.

After about an hour a female child was born alive, but as the head had to be brought so far back to disengage it from the pubes the perineum was unfortunately torn.

The placenta came away, leaving a good portion of the membranes behind, which necessitated removal with the hand, aided by a hollow irrigating curette, conveying a solution of hydrarg. perchlor., about 1 in 8,000.

The vagina was well washed out, and the perineum thoroughly cleaned with germicidal soap, and all clots removed, and three stitches of chromic catgut introduced.

The uterus contracted firmly.

May 30th, 1900.—The patient was very restless during the night, and could not swallow; but did not have any fits until 7.30 a m., when she had five fits; and when I saw her again, she was dreadfully convulsed. Chloroform was again administered, also chloral gr. xxx. per rectum; and as her skin was very dry and uterus well contracted, she was again warm packed for half an hour, and cold effusions applied to the head. She went off into an easy sleep, and after this dry cupping over the kidneys, followed by warm packs over the same region were ordered, and a quart of saline solution injected into the bowel. She slept easily all day, and about 8 oz. of urine were drawn off during the twelve hours.

10 p.m.—As the pulse was very much fuller, and the skin still very dry, another pack and $\frac{1}{14}$ of a gr. of pilocarpin were exhibited. This produced a most profuse diaphoresis, and about an hour afterwards, ♏ ii. ol. crotonis were also administered. She became gradually conscious after this, and was able to take plenty of liquids, and had a good night.

May 31st, 1900.—Morning: Pulse, 84; temperature, normal. Patient had recovered consciousness, and had three watery evacuations during the night. Face still puffy, and now complaining of headache. Ordered packs twice a day, the evening one to be accompanied by a hypodermic of strychnine nitratis gr. $\frac{1}{40}$ and $\frac{1}{12}$ gr. of pilocarpin. Also ordered caffein cit. gr. v. in water, to be taken every four hours for relief of headache. After the first caffein cit. powder, she passed one pint of urine naturally for the first time. Perineum looking well, and discharges natural.

7.30 p.m.—After pack and hypodermic, skin acted freely, and passed $\frac{1}{2}$ pint of urine; still complaining of head, and eyelids and face still puffy. Pulse, 100.

June 1st, 1900.—Morning: Pulse, 104; temperature, normal. Face not so puffy; headache much better. After this the patient gradually improved. She was kept on a milk diet; occasional vapour baths, and finally, tinct. ferri. perch. ♏ x. and liq. strychniæ ♏ v. were administered three times a day, for some time. The albumin gradually passed away, and the patient and her baby are now apparently quite well.

Mrs. H——, *æt.* 27, multipara, had a convulsion about 8 a.m. on the morning of June 24th, 1901. She had been confined by a midwife about 1 a.m. on the same date, and according to the nurse had a normal confinement. When seen by me, she was having a most violent convulsion, and her tongue was tightly caught between the teeth, and nearly bitten through. The patient was a very stout, full-blooded woman, and so I opened the median basilic vein of the right arm, and let away about 12 oz. of blood, and managed to get in nearly a pint of normal saline solution, in its place whilst she was under the influence of chloroform. Some very thick urine was drawn off and found to contain a large quantity of albumin, so dry cupping was administered over kidneys, and packs, and $\frac{1}{12}$ gr. of pilocarpin was used hypodermically. This treatment relieved for a few hours, and then the fits came on again, and were most violent in character. Saline solutions were injected into the bowels three times a day, and chloral hydrate grs. xx. in solution injected about once in six hours, and chloral administered when fits were specially violent. Altogether this patient had 32 fits extending over four days, but finally recovered under the saline treatment with the occasional help of pilocarpin hypodermic injection $\frac{1}{12}$ gr. and packs. The only trouble left behind in this case was a partial paralysis of the right arm, due, I think, to pressure on the nerves of the brachial plexus by the head of the humerus, which must have been dislocated at times during the fits. Under massage and electric treatment she has now regained complete use of the arm. The urine in this case varied in specific gravity from 1010 to 1015, and contained a lot of albumin, which gradually diminished and has now passed away The after internal treatment in this case being tinct. ferri. perchlor. ♏ x., three times a day, and a milk diet for some time.

Mrs. M——, multipara, *æt.* 43, sent to me for advice about her eyes, saying also that she was about seven months pregnant, and her sight was most defective on 15th July, 1901. I called to see her, and found she had pain in the top of the head, and all the symptoms of uræmia.

She was ordered hot packs and milk diet, and advised that her eyes be tested by a specialist; and they were tested by Dr. Box of Footscray. Her urine was scanty, and on examination almost solid with albumin, neutral in reaction, and specific gravity 1015. Her husband was warned that she might have fits. On July 24th the patient was found unconscious, about 9 a.m.. in her kitchen, and on my arrival was put to bed and put in a hot pack, and $\frac{1}{12}$ gr. of pilocarpin used with good effect. Saline injections were ordered every six hours.

Labour had commenced slightly, and per vaginam the os was soft, but not much shortened.

During the day the labour went on slowly, the patient having about two more fits, which were not very violent, and I was able to deliver her about 9 p.m., with forceps, of a live female child (about the seventh month). Barnes' bags were used to help the dilation of the os.

The patient gradually recovered, but her sight was very bad at first. Dr. Box examined her lately again, and I give the results of his examinations below.

The urine is still albuminous, and does not clear up very well, and the last specimen examined the specific gravity was 1014, and slightly acid.

Dr. Box's examination of the eyes before the patient had convulsions:—Right eye: Counting fingers at 4 feet. Left eye: Counting fingers at 6 feet. Typical albuminuric retinitis in both eyes, the effusions having the typical flamelike characters noted in such cases.

Examination of the eyes six weeks after confinement:—Vision had improved considerably, and where the flamelike effusions were, there are now atrophic patches.

In presenting these cases of eclampsia to you, I desire to point out that I have not gone into the theoretical problem as to the causation of this disease, but have just given you a bald statement of the cases and the treatment adopted.

The cases are instructive, as they furnish examples of eclampsia coming on before labour and after labour; and show the result of a little treatment beforehand in the worst case ameliorating the condition of the patient, and rendering the convulsions less severe in character.

There is no doubt that midwifery cases should be carefully watched during the period of gestation, and the urine examined from time to time.

Any symptoms of uræmia should be attended to at once; and not only this, there ought to be a ward specially fitted up in our hospitals, where poor people suffering from this condition could be sent, and where they could receive scientific treatment such as it is impossible to give them in their own homes.

[Read before the Victorian Branch of the British Medical Association.]

TWO CASES OF LARYNGEAL PARALYSIS ACCOMPANYING MITRAL STENOSIS.

By Sinclair Gillies, M.A., M.D. Lond., D.P.H., Hon. Assistant Physician Prince Alfred Hospital, Sydney.

I BRING before you to-night two examples of a pathological combination which is described as being extremely uncommon, though I am unable to say whether it has been looked for in any considerable number of cases.

The first case, C. A., is a well developed single woman of 30 years. At the age of eleven she had an attack of subacute rheumatic fever and subsequently three attacks of chorea, the last attack occurring twelve years ago. Eighteen months ago she was first attacked with shortness of breath and palpitation interfering with her work as a book-sewer. This attack lasted a few weeks. Six months ago she presented herself at the Throat Department of Prince Alfred Hospital, complaining of feeling a lump in her throat, and of occasionally losing her voice. Abductor paralysis of her left vocal cord was diagnosed, and she was treated with potassium iodide without benefit. She was then transferred to the medical out-patient department where she was found to have well marked mitral stenosis. On examination her voice was rather rough in quality. She had left abductor paralysis, and her heart exhibited the signs of pure mitral stenosis. The apex beat was 3½ inches from the midsternal line in the fifth space, and a well-marked presystolic thrill was present. There was no extension of the cardiac dulness upwards or to the right. On auscultation a presystolic murmur was heard at the apex, and the second pulmonary sound was accentuated. There was no fulness of the veins, no cough, no tracheal tugging, inequality of pupils or pulse, or other sign of aneurism. Her pulse was 100, small, regular. Her general condition is improving on digitalis and iron, though the laryngeal paralysis persists. There is nothing in her history to point to syphilitic infection, and no apparent cause for the condition of her vocal cords.

The question arises, what connection, if any, is there between her laryngeal and cardiac condition?

Case 2 affords a probable solution. O. L., a billiard marker, aged 40, had been attending the out-patient department, at intervals, for three years, suffering from well marked mitral stenosis and regurgitation, his chief symptoms being palpitation and precordial pain. He gave no history of rheumatic fever, but "sometimes had rheumatic pains in his shoulders."

At the time that C. A. presented herself he was in the wards owing to breaking down compensation, characterised by ascites, œdema of legs and lungs, orthopnœa and great cyanosis. Under treatment the ascites and œdema decreased, but the cyanosis remained, and he was much troubled by ineffectual cough.

On examining his larynx I found that he had complete paralysis of his left cord, which was fixed in the cadaveric position, the right crossing the middle line to meet it on phonation. This condition was verified by Mr. Hankins, who independently examined the case at my request. A day or two later the patient died suddenly.

I have here the contents of his thoracic cavity. His pulmonary veins and arteries have been injected with plaster of Paris as has his heart and aorta. The left ventricle has been opened, enabling you to see that his mitral orifice has been reduced to a mere calcareous slit. The left vagus and recurrent laryngeal nerves have been sufficiently dissected out to enable their course to be seen without altering their relations. The whole heart is enlarged, but more especially the left auricle. The right ventricle shews signs of hypertrophy and dilatation. The pulmonary artery is dilated, measuring 35 m.m. in diameter, compared with 30 m.m. the average. The aorta measures 25·5 m.m. in diameter instead of 28 m.m. The patient was a small slight man. The ratio pulmonary to aortic diameter thus becomes $\frac{15}{11}$ instead of $\frac{15}{14}$. On tracing the recurrent laryngeal on the left side it will be seen to pass between the arch of the aorta and the dilated left branch of the pulmonary artery. Here pressure has occurred, and on tracing the nerve further it is seen that at no other part of its course is there any cause for compression. The inference is, that in the case of O. L., and probably also in C. A., the paralysis of the left cord is due to compression of the recurrent laryngeal between the aortic arch and a dilated left branch of the pulmonary artery. Long continued high pressure in the pulmonary circulation, combined with want of elasticity in the pulmonary artery, have resulted in dilatation of the pulmonary artery and its main branches with resulting compression of the recurrent laryngeal nerve.

At the last German Medical Congress (*B.M.J.*, 11th May, 1901, p. 1,155) Dr. Von Schrotter related a case of compression of the recurrent laryngeal nerve, caused by a rare condition. The nerve was wedged between a dilated ductus Botalli and the aorta. "The case was further complicated by some mitral stenosis." Dr.

Kraus recounted a case in which the recurrent laryngeal was compressed between the left branch of the pulmonary artery and the ligamentum arteriosum; also in a case of mitral stenosis. In the report of neither of the above cases is mention made of the condition of the pulmonary artery. Examination of the specimen from O. L., shews that the ligamentum arteriosum in this case passes obliquely forward from the aorta to the pulmonary artery, and that it is situate in front of the spot where the recurrent laryngeal winds round the aorta.

[Read before the October Meeting of the New South Wales Branch of the British Medical Association.]

NOTES ON CEREBRO-SPINAL MENINGITIS.

By Hampden Carr, L.K.Q.C.P., L.R.C.S. Irel., Port Pirie, S.A.

I purpose in this paper to give a brief sketch of some of the cases of "Cerebro-spinal Meningitis" that came under my observation during the recent epidemic in Port Pirie, and, in one case, to give fuller details as regards temperature and symptoms.

Case I.

August 28th.—Mrs. C.—aged 50 years—rheumatic subject I was called to see her on August 28th in the afternoon. She had been complaining of pains in the limbs, headache, shivering and general malaise for 24 hours, and had vomited several times. When I arrived she was lying doubled up on a sofa—being too ill to undress. She was moaning and turning her head from side to side, and throwing her arms about, and was retching bile-colored mucus almost continuously. She was quite sensible and answered when spoken to. She complained of severe headache and pains in the abdomen. Temperature, 103°; pulse, 120, weak and irregular.

In the evening her condition had not improved; she could not be roused, and groaned with each respiration, although the lungs were perfectly clear. The muscles of the face were contracted, giving her almost a sardonic grin. The thumbs were drawn into the palms of the hands, the wrists flexed. She still moved her head from side to side, and though apparently conscious, she could not speak when addressed. She was able to swallow liquids. Temperature, 103°; pulse, weak, running and irregular.

August 29th.—On August 29th I saw the patient in consultation with Dr. R. H. Hamilton. She was sensible, but could not speak. There was no hyperæsthesia, and the pupils reacted to light. During the course of the day the patient sank gradually and died on the following morning, August 30th.

Case II.

August 28th.—M. H., aged five years—healthy child. On the evening of August 28th M. H. went to bed quite well—having eaten a good tea. About two hours afterwards she woke up complaining of pains in her abdomen, and vomited. I saw her at 12 p.m. She said she had great pain in her legs, and was retching bile-stained mucus. She was very drowsy, but easily roused. There was no tenderness over the spine. Temperature, 100°; pulse, weak and irregular.

August 29th.—Next morning the child was worse. She was still retching and was muttering to herself, but could be roused when spoken to. Temperature, 103°; pulse, running. Convulsions came on a few hours before death, which took place next morning, August 30th.

Case III.

A. H, aged four years—healthy child The girl A. H. was a sister of case 2, and on the death of the first child the parents moved to a friend's house.

August 31st —The next day, August 31st, A. H. complained of pains in her legs and of feeling tired. She vomited bile-stained mucus frequently. She died in 24 hours from collapse. Convulsions began about an hour before her death on September 1st.

In this case I was able to make a *post mortem* examination a few hours after death. There was a great deal of *post mortem* discoloration on the back, and congestion of vessels of the membranes covering the brain. There was an effusion of almost clear fluid round the medulla; hypostatic congestion of the bases of both lungs, but no consolidation. Petechial spots were to be seen in the intestines, especially over the small intestine—all the other organs were normal.

In cases II. and III. there was no headache, intense pain, nor any typical symptoms until the convulsions shortly before death. The chief feature was the bad character of the pulse from the beginning of the illness.

Two children of the friend in whose house case III. died were seized with the same symptoms. One was taken ill on the Sunday, September 1st, and died in eight hours from the onset of attack. The other on September 3rd, and lived for two days.

I can find no reference in any books to the period of incubation of this disease, but judging by the above cases, it seems to be about 48 hours.

CASE IV.

September 4th.—Miss G. J., aged 21 years, a delicate and anæmic girl.

This patient had been ailing for a week, and had been treated by a chemist for influenza. I was called in on September 4th. She was then complaining of severe headache, and pains in her back and legs. Temperature, 102°; pulse, weak and running, and the tongue coated.

I was sent for again that night, as her head was intensely painful and vomiting had set in. She was very restless—tossing from side to side, throwing her arms about and groaning. She was quite conscious. There was no hyperæsthesia, pain or tenderness over the spine.

September 5th.—Temperature was 103°, the pulse running, the extremities cold and clammy, pupils normal and reacting to light, bowels constipated. During the day she vomited a quantity of green fluid. and complained of pain in the epigastrium and great pain still in her head and limbs.

At 7 p.m. the bowels were slightly moved—the discharge being very offensive. The patient was greatly collapsed. Temperature, 102°. During the night she was much excited.

September 6th.—An erythematous rash appeared, first on the right hip, from whence it spread rapidly over the body and face, whilst at the same time petechial spots developed on the right thigh, and a herpetic eruption on the lips. During this night the patient became unconscious, and had twitchings of the muscles of the extremities.

September 7th to 15th —During this period her temperature varied from 100° to 101°, with very slight improvement of all the symptoms, but on the 15th she had a relapse. Her temperature ran up to 103°; the pains in the spine and limbs, and the headache returned with great severity. She remained in a semiconscious state all day, and I had great doubts of her subsequent recovery.

September 16th.—In 12 hours her temperature fell to normal, then for four days varied between 99° and 100°, but on the 20th she had a second relapse, and all the symptoms reappeared. They again yielded to treatment, and on the 21st the temperature again fell, and from then she slowly improved until she became convalescent.

Treatment.—In the case of Mrs. C., I ordered a bismuth mixture to be given her, and mustard to be applied to the epigastrium, and gave her five grains of calomel, and a hypodermic of morphia. She was afterwards given bromide draughts in sufficient quantities to soothe her.

In the case of Miss G. J, when I first saw her I treated her with bromide draughts and applied mustard to the epigastrium, but as she was unable to retain anything on her stomach and vomited continually, she was given the bromide by the bowel, and also nutrients every four hours. She took nothing by the mouth but dram doses of champagne every half hour. Constipation in her case was very troublesome, and was treated with mag. sulph. and calomel.

In the beginning of her illness, and when each relapse occurred, blisters were applied to the back of her neck and occiput. After each application, the effect was most marked in the rapid reduction of temperature, and relief to the headache.

I regret that a week of the notes and temperature chart of this case was lost, so that I am unable to give it as fully as I could have wished.

[Read at October Meeting of the South Australian Branch of the British Medical Association.]

NOTES ON EPIDEMIC CEREBRO-SPINAL MENINGITIS.

By R. W. Stewart, L.R.C.P. Edin., M.R.C.S. Eng.,
Port Pirie, S.A.

ABOUT the middle of August last I was called to see a child, aged five years, who had only been ill a few hours. Temperature 104°, pulse 130. He complained of great pain in the back of the neck and head; his head was flexed backwards, and fingers firmly closed, and wrists bent into the fore part of the arm. His condition was unaltered for about 24 hours; he was quite sensible. Shortly afterwards he was convulsed, and died early next morning. A brother of this patient, about seven years old, was admitted to the hospital at 9 a.m. and died the same day at 9.45 p.m. He had walked a mile without distress, but did not seem well. When admitted, temperature 102°, pulse very rapid; he was drowsy and vomiting, and had slight twitchings. 3 p.m., temperature 103°, still very sick; 7.30 p.m., still sick, temperature 105°; 9 p.m., was violently convulsed and died at 9.45 p.m. I made a *post-mortem* examination in this case and examined every organ, giving special attention to the brain and spinal cord, Drs. Leach and Carr assisting me. There was no increase of the cerebro-spinal fluid, though both brain and cord were congested and soft; other organs normal. The same appearances were found at a *post-mortem* by Dr. Carr, at which I was present. After death, in all cases, there was a rapid discolouration; before death occurred the wrists, thighs (inside), and the abdomen were thickly covered with purpuric extravasations and lighter coloured bulbs.

The following notes were taken in the case of a man, and who undoubtedly was suffering from cerebro-spinal meningitis, and is now quite convalescent:—

W. R., *æt.* 19, was admitted 17th August, 1901. Temperature, 98°; slight pains in head. This case was at the time uneventful and discharged 21st August, 1901. He was re-admitted 22nd August, 1901, at 2.30 p.m., complaining of great pain in head and neck; temperature, 102°.

23rd.—Temperature, 99° at 9.30 a.m.; 100° at 6 p.m. Very sick and had severe pains in neck and back.

24th.—Vomited everything, noisy, delirious, temperature, 102° at 9.30 a.m.; 101° at 6 p.m.

25th.—Delirious, neck stiff and retracted, very sick. Temperature, 101° at 9.30 a.m.; 100° at 6 p m.

26th.—Not sick; temperature, 101° at 9 a m., and 100° at 6 p.m.

27th.—Restless, delirious, vomiting, pupils dilated, great pain in legs. Temperature, 100° at 9.30; 99° at 6 p.m.

28th.—Temperature normal night and morning.

29th.—Muttering, delirious, sick twice. Temperature, 99° at 9.30 a.m.; 103° at 6 p.m.

30th.—Good night, complains of pain in back.

31st.—Seems well, temperature normal.

September 1st.—Very thirsty, not sick, pain in head from the 1st to 12th. Temperature ranged from normal to 101°, occasional attacks of vomiting and delirium.

From 12th, constant and steady improvement up to date.

J. T. M., *æt.* 23.—Admitted 9 p.m. September 4th, died September 6th. Was hardly conscious, very restless, could not bear to have his head moved, pain in neck, back and head. Temperature, 105°.

September 5th.—Had great irritation of the skin of abdomen; was covered with purpuric spots. Temperature, 97° at 6 p.m.

September 6th.—Was insensible all day; had convulsions at 4.30 p.m., which lasted about five minutes, breathing very laboured. 4.45 p.m.: had convulsions which lasted till he died at 9.30 p.m.

All cases I have seen either in consultation, or my own or in hospital have been consistent with the diagnosis generally given by my fellow-practitioners and myself, of cerebro-spinal meningitis in an epidemic form. The spots of subcutaneous hæmorrhages with herpetic vesicles of a dark red colour, head thrown back, thighs bent on abdomen, legs flexed on thighs, hand clenched and bent on palmar aspect of forearm, early discolouration, rapid decomposition are characteristic symptoms. I have not seen anything approaching to opisthotonos, nor have I noticed much deviation from the normal iris. In two cases I have seen, one of a child *æt.* five and the other a man *æt.* 25, the muscular action could not be called convulsive, as there were no violent movement of the limbs, but resembled a muscular tremor, which was continuous. Both these cases were rapidly fatal; the child was only seen at 6 p.m., up to which hour it had been quite well, and died at 11 p.m. the same night. The man complained of illness at 6 p.m. I saw him at 8 p.m. and he died in about an hour. I thought at the time the epidemic was influenced by atmospheric conditions, as the weather was close and oppressive, and clouds low down. On Tuesday week there was a hurricane, followed by one of the most severe thunderstorms I have ever known here. That apparently ended the epidemic, at least for the time, as up to now there have been no fresh cases.

[Read at the October Meeting of the South Australian Branch of the British Medical Association.]

CASES ILLUSTRATING THE WIDE RANGE OF INFECTIVITY OF THE PNEUMOCOCCUS OF FRAENKEL.

By Sydney Jamieson, M.B., C.M. Edin., M.R.C.S., Hon. Physician and Pathologist, Sydney Hospital, Lecturer on Pathology, University of Sydney.

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DURING the latter half of the winter, owing, I think, to the fact that the weather conditions favoured it, and influenza in an epidemic form was present in our midst, we experienced a widespread and unusually severe outbreak of pneumonia. With the view of leading to a useful discussion on this important subject, I have taken this opportunity of recording a few cases illustrating the wide range of activity of the infective agent.

D.M, *æt.* 7, school girl, admitted to the Sydney Hospital, November 7th, 1900.

History.—Patient had complained, on and off for about three weeks, of pain on the left side of the neck and ear aggravated on swallowing. On the evening of the day prior to admission she had been seized with pain on the left side of the abdomen which had kept her awake most of the night. The next morning (the 7th) she seemed quite prostrated, and complained of looseness of the bowels, and pains in the knees and wrist joints.

Past Health.—She had had scarlet fever three years ago, and "intermittent" fever about two years prior.

Family History.—The mother had been troubled with cough for about 18 months and an uncle had suffered from acute rheumatism.

Condition on Admission.—Very flushed, suffering from great pain on left side of chest, and in both knees and wrists. Tongue furred and dry. No swelling of any of the affected joints. No trouble on micturition. Temperature, 104° F.; pulse, 120; respiration, 48. Skin moist; examination of heart and lungs revealed nothing abnormal. Urine contained epithelial and granular casts, some blood corpuscles and a large number of loose epithelial cells. Specific gravity, 1014; acid; small amount of albumin. No enlargement of liver or spleen.

Progress and Course of Case.—The temperature gradually came down and reached the normal on the 3rd day after admission, and the child's general condition seemed to improve markedly.

On the evening of the 5th day after admission she had a severe rigor, and the temperature ran up to 103° F. It was then found that the left knee joint was slightly swollen and painful to touch. At the same time, also, a slight murmur was audible over the base of the heart. A small dose of quinine was administered and the temperature fell in a few hours to normal, but rose next afternoon to 102° F. Two days later a distinct systolic murmur was audible over the pulmonary area conducted upward towards the middle of the left clavicle. It was also noticed at this time that the patient was very deaf. Slight retraction of the neck was noticed, and movement of the head produced pain.

Next day (November 15th) patient seemed easier, the knee joint was sensibly diminished in size, but the pulmonary murmur was still plainly audible.

For the next five days the temperature ranged between 102° and 104° during the evenings, and came almost down to normal during the mornings. During this period evidences of a broncho-pneumonia showed themselves.

On November 20th.—The blood was examined and the following conditions noted:—Coagulation rate not apparently increased, slight poikilocytosis, red cells 2,040,000 per cubic metre, white cells 22,000. No nucleated red cells were found. There is an increase of lymphocytes both actual and relative, and a marked increase of microcytes. No organisms found.

On the 22nd it was noted that the temperature was still oscillating very markedly, and the cardiac murmur remained unchanged. A small abscess was noticed on the first finger of the left hand; the pus from the abscess was found to contain streptococci, and some small diplococci, apparently without capsules. No growths were made.

On the 26th.—Temperature still showing marked oscillation. Complaining now of great pain in the back of the head and neck. Cardiac murmur as before. Marked tenderness over the precordial area. An abscess was now found to have formed in the left leg. The pus from this contained both strepto- and staphylococci.

On December 10th.—During the interval between this and the last date of observation, the temperature still kept oscillating, at times reaching as high as 104° F. and 105° F. It now shows signs of defervescence. Not complaining so acutely. No cardiac murmur. Neck muscles still rigid and somewhat painful on manipulation.

On December 17th.—An ophthalmic examination of the discs revealed the presence of a double optic neuritis, with much choking of the discs.

On December 20th.—Condition seems to have improved somewhat during the last day or two. An abscess has formed on the right buttock. The pus from this contained *numerous capsulated diplococci*, but no other organisms.

On December 31st.—Condition about the same. Very drowsy. No hæmaturia now. Numerous petechiæ have formed in various parts of the trunk and limbs. Temperature has been normal for five days.

January 12th.—Urine contained a few epithelial cells but no blood, albumin, or casts.

January 13th.—Very emaciated. Lies in bed with head drawn back and body in a condition of complete opisthotonos. Muscles of back and of back of neck extremely rigid. Legs drawn up. Moving of legs or trunk causes great pain. Both Kœnig's and Babinski's signs present. Heart sounds clear but feeble. A lumbar puncture was performed, but no organisms were found, and no growth took place when the small amount of clear, serous fluid which was obtained, was inoculated on agar-agar, or blood agar tubes.

January 17th.—Much better. Facial aspect brighter. Less stiffness of muscles of back. Can now lie comfortably on the back. Heart sounds quite clear.

January 21st.—Still improving. Taking nourishment well. Less stiffness of back muscles. Pulse fairly good.

January 24th.—Very much improved. Muscles of back and neck much less stiff. Can almost straighten the legs without pain.

January 28th.—Still improving. Putting on flesh and eating well.

From this time onward the child gradually returned to health. For some considerable time, however, there was considerable mental enfeeblement, but gradually this also disappeared, and the child left the hospital on the 22nd of March of this year (*i.e.*, after a stay of over four and a half months).

Comments.—The diagnosis in this case cannot be said to be pneumo-coccal with absolute certainty. In some respects the course of events seems to suggest a septicæmic process of staphylococcal or streptococcal origin commencing in the throat and from there invading the system. It seems to me, however, somewhat hard to accept this diagnosis with the fact that an undoubted basal meningitis occurred during the course of the illness, and that the pus from the abscesses, which formed on two occasions, contained numerous diplococci, and on one occasion these had a capsulated appearance. Unfortunately, no cultures were made from the samples of pus. All the phenomena of the case, however, are readily explainable on the assumption that the case was one of a general pneumococcal infection. The course of events was as follows:—First a septic sore throat, probably of streptococcal origin—associated with the occurrence of synovitis, a not uncommon complication of such a condition. Then followed a broncho-pneumonia, and then a pneumococcal endocarditis with secondary pneumococcal abscesses in various parts of the body by embolic infection, and this last condition followed by a pneumococcal meningitis with ultimate recovery.

W.R., *æt.* 50, labourer. Admitted to Sydney Hospital 13th June, 1901, and died the same day, a few hours afterwards.

He was in a state of complete collapse. Breathing, rapid and shallow; temperature, sub-normal. Extremities cold and livid. Pulse, almost uncountable.

An hour before death some blood was drawn from the finger tip and inoculated on a sloped agar tube, with the result that next day a pure culture of the pneumococcus was found. Patient was too ill for any detailed physical examination to be made. A *post-mortem* was held next day, and the following conditions were noted:—

Lungs.—Right: Weight, 2 lb. 3½ oz.; very deeply pigmented; considerable overgrowth of interstitial tissue; organ deeply congested and very œdematous; some fibrinous exudate in the pleural surface. Left: Weight, 2 lb. 5½ oz. Much the same as its fellow, except that its lower lobe was completely hepatised, being in a stage of red hepatisation passing into grey.

Heart. — Weighed (with pericardium attached) 18 oz. The pericardial sac was greatly distended by a dirty, yellowish-white, turbid fluid, in which numerous flakes of lymph were floating. The surfaces of both visceral and parietal pericardium were covered by a thick layer of honeycombed fibrinous exudate. A firm, white, gelatinous clot was found extending from the right auricular appendix through the tricuspid valve into the right ventricle, and thence up into the pulmonary artery. Some endocardial ecchymoses were also noted.

Abdomen.—Scattered over the surfaces of the coils of intestine were some small flaky films of fibrinous exudate, and the peritoneal sac contained a small quantity of fluid similar to that found in the pericardium.

Liver.—This organ was pushed downwards by the distended pericardial sac. The gall bladder was full of friable dark-coloured gall stones, apparently composed mainly of bile pigment. The organ showed, microscopically, signs of cloudy swelling and an early stage of chronic venous congestion. Stomach and intestines showed nothing abnormal.

The kidneys showed nothing except a slightly marked steel grey pallor of the cortex and some slight adhesion of the capsule. Microscopically they showed cloudy swelling and some thickening of the Bowman's capsules in places, together with slight interstitial increase of fibrous tissue. Spleen of normal size, shape and consistence—on section, rather dark coloured. Cultures were made from the blood and the pericardial fluid, and in each case a luxuriant growth of pneumococci in pure culture were found. The medium used was blood agar. Cultures were also made on similar media of both the peritoneal exudate and the spleen pulp, and in each case growths of pneumococcus and bacillus coli communis were obtained.

This case was apparently one of pneumococcal septicæmia, and death was no doubt due to that cause.

W. L., *æt* 46 years, a waiter, admitted to Sydney Hospital, 7th July, 1901. Died, 9th July, 1901.

Complaint.—Cough and pain in the right side. Had been ill seven days. The attack started with a rigor, together with pains all over the body. The onset of his illness was also accompanied by severe epistaxis. The pain in the right side was stabbing in nature and aggravated by drawing a deep breath or by coughing.

History.—Had "congestion" of the lungs ten years ago. His father died of phthisis. He is somewhat addicted to alcoholic excess.

Present Condition.—Patient is ill nourished; an outcrop of herpes on the upper lip; slightly delirious; temperature, 102° F.; pulse, 132; respirations, 28.

Respiratory System.—Cough troublesome; sputum of a greenish yellow colour (it had been rusty before admission), signs of consolidation found at left base and in axilla; right lung free.

Heart.—Pulse very rapid and dicrotous; apex beat not palpable; cardiac sounds very faint and distant.

Urine.—Specific gravity 1020; contained a thick deposit of acid urates, and a considerable amount of albumin.

The day after admission undoubted signs of pericarditis showed themselves. Patient rapidly went down hill and died about 48 hours after admission. A *post-mortem* examination was held the same day and the following conditions noted: The two lower lobes of the left lung were in a state of grey hepatisation. The pericardium and the condition of the heart generally were in a state similar to the case last described. The liver was displaced about two inches downwards by the pericardial effusion. The stomach and duodenum showed numerous submucous hæmorrhages; kidneys appeared to be in a state of cloudy swelling; spleen soft, but not enlarged; pure cultures of the pneumococcus were obtained both from the blood and pericardial fluid. The same organism was also found in the spleen mixed with bacillus coli communis.

S. M., *æt* 45 years, tarpaver, admitted to Sydney Hospital, 16th June, 1901; died the same day. On admission he was in a comatose state. Was brought to hospital by the Civil Ambulance Brigade; on the way he vomited several times. It was ascertained from his friends that he had been ill about a week, but had refused either to take medicine or go to bed. Owing to the collapsed condition in which he was, no systematic examination of the body was made A drop of blood was however drawn from the finger tip three hours before death and examined microscopically. It showed a marked leucocytosis there being 36,800 white cells per cubic millimetre, and of these 99 per cent. were polymorphonuclear neutrophiles, and 1 per cent. lymphocytes. The blood was also inoculated on the surface of a sloped blood agar tube and a pure culture of pneumococcus obtained. The blood count in this case is remarkable, chiefly owing to the fact that a marked neutrophilia, such as was found, is generally regarded as of favourable prognostic import in connection with pneumonia before the crisis. The temperature in this case, upon admission, was 102° F., but shortly before death it rose to 107° F. A *post-mortem* examination was held the next day and revealed the presence of grey hepatisation of the whole of the upper lobe of the left lung. The heart showed nothing abnormal except the presence of a tough white gelatinous clot, filling both right auricle and ventricle, and extending up into the pulmonary artery. The stomach and duodenum showed numerous submucous hæmorrhages and erosions. The liver and kidneys showed cloudy swelling. The spleen was enlarged and somewhat soft.

Brain.—Spread over both vertex and base of brain, but especially over the parietal lobes, and the space between the upper surface of the cerebellum and the under surface of the occipital lobes was a light greenish yellow gelatinous exudate. Along the lines of the larger vessels this exudate was yellower in appearance; the exudate did not extend to the under surface of the frontal lobes. The antrum of Highmore, the mastoid cells, and middle ears, and the sphenoidal and frontal sinuses appeared healthy. The ethmoidal cells also appeared healthy. There was no extension of the inflammatory change down the spinal canal. Pure cultures of pneumococcus were obtained in this case from both the blood and the meningeal exudate.

T.M., *æt* 29 years, usher, admitted to Sydney Hospital, 14th June, 1901. Died, 16th June, 1901. Was brought to hospital; on admission was quite delirious. The only history obtained was that five days ago he had been suddenly seized with a violent rigor and had been getting progressively worse each day.

Condition on Admission.—Delirious; skin, hot and dry; temperature, 102°; pulse, 124, feeble and dicrotous; respirations, 44; sputum, rusty. On examination it was found that the base of the right lung was consolidated. The sputum was found to contain large numbers of pneumococci, but examination of the blood gave a negative result. The blood was found to contain 14,200 white cells per cubic millimetre, but no differential count was made. The temperature, which on admission was 102° F., fell to 100° on the evening of the first day of his stay in hospital. It rose next day to 102° F. at noon, and shortly afterwards began to rise steadily till it reached 106° F. Shortly before death it fell to 103° F.

The urine contained a trace of albumin

Unfortunately no *post-mortem* examination was allowed in this case. From the character of the temperature and the high white cell count in the blood, I am inclined to think that this case was complicated by a basal meningitis. The mental condition was also suggestive of this.

H.K., *æt.* 22 years, fireman (Mahomedan), admitted to Sydney Hospital, 10th June, 1901. Died, 15th June, 1901.

His illness commenced with pain in the side and cough six days before admission. Owing to the fact that he could not speak English, practically no history could be obtained. On admission the respirations were 58, pulse, 132. Patient looked desperately ill and groaned with pain on drawing a deep breath. A cursory examination revealed the fact that there was consolidation at the left base and this in the course of twenty-four hours extended so that the whole lung was involved.

The temperature, which, on admission, was 102° F, rose to 104° the same evening. For the next four days it ranged between 101° and 103·5° F., and shortly before death became subnormal.

The dyspnœa became more and more urgent, and the respirations, which on admission were 44, rose to 60 shortly before death.

A short time before death, about six hours, an examination of the blood was made and disclosed a marked leucocytosis (96 per cent. neutrophiles and 4 per cent. lymphocytes). A small quantity of blood was smeared on the surface of some agar and within twenty-four hours after incubation a copious, pure growth of the pneumococcus was obtained.

A *post-mortem* was made two days after death, and the following conditions noted:—Exceedingly well developed; very muscular man. Skin ebony black (he was an African negro). The left pleural space was completely obliterated by easily separable adhesions.

Right Lung.—Visceral pleura showed some slight patches of gelatinous fibrinous exudate. The lower lobe completely consolidated, and in a state of grey hepatisation. The upper and middle lobes were congested and œdematous. Weight, 2 lb. 8 oz.

Left Lung.—Whole surface covered by fibrinous exudate. Organ completely consolidated. Weight, 2 lb. 10½ oz.

The *heart* showed some large ecchymoses on its epicardial surface. The usual pale gelatinous clot filled the right side of the heart.

Peritoneum was healthy.

Liver uniformly enlarged and of pale colour and normal consistence. Weight, 4 lb. 9¾ oz.

Kidneys showed evidences of cloudy swelling.

Spleen of about normal size, consistence somewhat subnormal (body had been dead nearly two days).

Brain healthy. In the left ethmoidal and sphenoidal sinuses there was some purulent polypoid tissue. Other sinuses healthy.

G. L——, *æt.* 36; married woman. Admitted June 7th, 1901; died June 14th, 1901. Complained of pains in the head and in the right side of the chest. Had been ill for three days. At the onset of her illness was nursing, but coincidently with the onset of the illness there was a suppression of the milk.

Condition on Admission.—Temperature, 104° F; pulse, 120; respirations, 28. Tongue dry, dirty and heavily furred. A slight friction rub was audible in the right axilla, chest resonant all over. Dyspnœa slight.

The next day the friction rub was more audible, and the patient appeared much easier. Respirations were now only 24, and the pulse rate 130.

On the following day (*i.e.*, 9th June, 1901), the friction had disappeared, and a few fine crepitations were audible at the right base in the mid axillary line. The milk has now returned. Patient feels very comfortable, and is now quite free of headache. Temperature, 104° F.; respirations, 32; pulse, 128.

June 10*th*, 1901.—Dulness on percussion at right apex, both in front and behind; tubular breathing; bronchophony and pectoriloquy; patient slept well during the preceding night.

June 11*th*, 1901.—The sputum which is now viscid and blood stained, contained almost a pure culture of pneumococci.

June 12*th*, 1901.—Slightly delirious. very urgent dyspnœa. Temperature, 104° F.; respirations, 40; pulse, 140.

June 14*th*, 1901.—Very urgent dyspnœa; very cyanosed; face bathed in cold perspiration; extremities cold; temperature rapidly falling; a smart attack of diarrhœa has supervened. Respirations, 60; pulse, 148. Patient gradually sank and died. About 25 hours before death some blood was inoculated upon a sloped agar tube, and a pure culture of the pneumococcus obtained. The blood showed a leucocytosis of only 4,800 per c m. A *post-mortem* examination was made the next day. Right pleural sac obliterated by easily separable adhesions. Over the lower lobe there was some puriform exudate.

Right Lung.—Whole lung completely consolidated, and for the most part in a state of grey hepatisation. Towards the periphery of the lung, however, there were some areas looking like red hepatisation. Weight, 2 lbs. 13¾ ozs.

Left Lung.—Extremely congested and œdematous; very friable, as though in an early stage of red hepatisation. This was especially marked near the root of the lung where there were several areas of a deep red colour. Weight, 1 lb 3½ ozs.

Heart.—Showed the usual gelatinous clot all through the right side, otherwise healthy.

Peritoneum —Healthy.

Liver.—Uniformly enlarged, lobules very distinctly mapped out by pale areas, appears to be in state of cloudy swelling. Weight, 4 lb. 14½ oz.

Stomach.—Showed several submucous ecchymosis and a brown pigmentation in scattered patches.

Kidneys.—Apparently in state of cloudy swelling.

Spleen.—Enlarged, about normal consistence. Weight, 13¼ oz.

Brain.—Healthy, all sinuses appear normal.

Films prepared from the spleen were found to contain considerable numbers of pneumococci.

Remarks.—I feel I owe the members an apology for the somewhat brief and scanty nature of the clinical records of these cases. This, however, as I have explained, was mainly due to the fact that most of the patients were so urgently ill that an extended examination was not justifiable. I think you will agree with me that these cases illustrate in a most marked degree the exceedingly complex and varied manifestations that the disease pneumonia may assume, and the marked frequency with which the disease is apt to become septicæmic before death. It has been observed that the subcutaneous injections of pneumococci *of full intensity* into rabbits, mice, and guinea pigs causes an acute septicæmic process without signs of pneumonia, while an *attenuated* culture subcutaneously introduced sometimes gives rise to pleurisy, and pneumonia, or both conditions. Moreover, the injection of attenuated cultures *into* the lungs is usually followed by pneumonia.

These experiments would seem to show that the type of pneumonia is, to some extent at any rate, regulated by the degree of virulence of the micro-organism.

In this way we may explain the extremely virulent forms of pneumonia that have characterised the outbreak we have recently had occasion to observe in Sydney.

To my mind, however, there has been at work another factor of importance in determining the heightened virulence of the pneumococcus, and that is the devitalising influence of an antecedent or concurrent attack of influenza.

The cases I have quoted by no means exhaust the complications to be found in connection with pneumococcal infections, for I have seen numerous examples of pneumococcal empyæma both of pleura and bony sinuses, one of pneumococcal synovitis, several cases of pneumococcal meningitis, and two instances of pneumococcal cellulitis—one of the thigh during convalescence from pneumonia, and the other in my own person from a wound whilst conducting an autopsy.

I wish here to express my indebtedness to my assistant, Dr. Stacey, for much valued assistance in carrying out the blood examinations in these cases, and to thank you for a patient hearing of a somewhat lengthy and disconnected discourse.

[Read at the October Meeting of the New South Wales Branch of the British Medical Association.]

A CASE OF INTERSCAPULO THORACIC AMPUTATION.

By J. A. G. Hamilton, B.A., M.B., T.C.D. of Adelaide.

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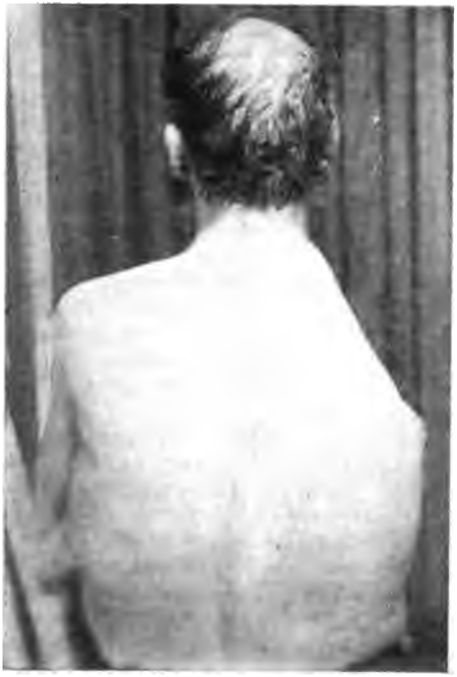
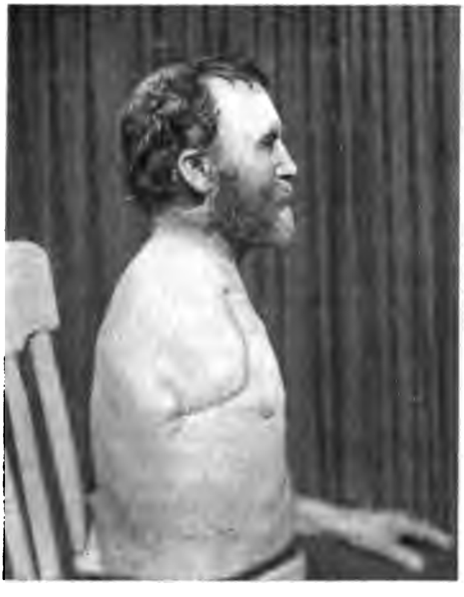
J F., *æt.* 60. Twelve months ago he had a wart on dorsum of right hand, which was removed with a strong acid. There was a stellate scar on the hand where the acid had run over. Subsequently abscesses developed in his right axilla. These were opened and scraped on several occasions. The skin of axilla and glands, and the anterior flap became affected with epithelioma.

Operation, September 30th.—The skin was divided over clavicle and the middle third of bone was removed by two snicks of a horse tooth clipper, kindly lent by Veterinary Surgeon Desmond. The pectoralis major was cut across and the finger pushed under the sub-clavius muscle, vein, artery, and several cords of brachial plexus. The flexion of the finger controlled the artery, while the return of venous blood was facilitated by elevation of the limb by my assistant, Dr. Angas Johnstone. The structures on the finger were clamped with a Doyen's hysterectomy forceps, and cut adrift outside the clamp; the limb then fell away. Separate wallaby tendon ligatures were applied to the sub-clavian and supra-scapular arteries. The damaged ends of the brachial plexus were trimmed. The veins remained placid and acted like the valve of a Dunlop tyre. The limb was then pulled over the end of the table and continuously rotated outwards and removed with axillary contents and the whole of the skin and anterior fold of axilla. The knife was kept close to the vertebral border of the scapula, so as to conserve the posterior scapular artery for nutritive purposes. This left a well-nourished apron of shoulder and upper arm skin like a saddle flap, which was rounded off to co-apt with pectoral lip on wound. The greater part of pectorals, sub clavius, some serratus magnus, and a patch of intercostals, covering the parietal pleura in the second interspace were dissected off from the wall of the thorax. Not more than six vessels required clipping. The clips were removed and were not replaced by ligatures. The wound was flooded with hot saline solution, sponged dry, and sewn up with continuous catgut in the upper angle, supplemented with intermediate horse-hairs; the lower part with silkworm gut and interrupted horse-hairs. Only six silkworm sutures, and about twelve horse-hairs, wide apart, were required. A gauze drain was put in the redundant pout at the lower angle of wound, and left for twenty-four hours. The operation lasted thirty-eight minutes. The catgut was removed on the fourth day, and the horse-hair at the end of a fortnight. The pulse which, before the operation, was 78, was 104 at the end of the operation, and remained between 90 and 100 ever since. The next day he spat up a little blood, the result of an accidental needle prick. He walked in the garden on the fifth day with the aid of a stick. On the seventh day he so far recovered his equilibrium as to walk without it.





All recent writers recommend denuding bone in this operation; what for, it is hard to say, as the bone is about to be removed. Professor Watson has seen several of the great masters do this operation, including Berger, and they all, with the exception of Sir Thomas Fitzgerald, carefully stripped the periosteum off a bone they were about to remove. The American tooth clipper snips the bone through quickly, and so much quicker than a saw, and much safer than the ordinary bone forceps; the blades are short, sharp, and blunt pointed and cannot reach far enough in to endanger the vessels. It is only loss of time to double ligature the sub-clavian, as one ligature is removed with the ablated limb. An aneurism needle is unnecessary. It is said the danger of air rushing into the vein is great, but if the vein is cut in the proper place this is obviated, and the natural valve prevents the blood rushing out. These are the two dangers laid down in the text books. This anatomical fact was pointed out to me by Professor Watson. No doubt it is better to tie this vein, but in this particular case it was unnecessary.

[Read at the October Meeting of the South Australian Branch of the British Medical Association].

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CASE OF POISONING BY MERCURIC IODIDE.

By Robert Brummitt, M.R.C.S. Eng., Adelaide, S.A.

ON the afternoon of May 18th I was called to see Mrs. B., who was said to have taken poison. The messenger explained that a few minutes previously her mother had been walking to and fro in the kitchen obviously in severe pain; she then admitted having taken seven tabloids that had been prescribed for the preparation of a lotion, and fell to the floor, where she remained, apparently dead.

I found the patient, a middle-aged woman, lying flat on her face with extended arms; she was rigid and I turned her on to her back with difficulty. At the first glance I thought she was dead, her face was dusky, almost livid; her eyes were closed, the conjunctivæ were insensitive, the pupils dilated, but not extremely so; the radial pulse was imperceptible. After careful observation I found cardiac impulse and very feeble respiratory movements. Change of position was followed by improvement in breathing, and by return of feeble pulsation at the wrist. There were no signs of corrosive action about the mouth or lips, or of vomiting having occurred.

I injected hypodermically one-tenth of a grain of apomorphine. Within two minutes sickness resulted, a quantity of dark, half-digested food was rejected without anything in odour or appearance to throw light on the nature of the poison. The woman was sufficiently aroused by emesis to change her position a little. Then assistance arrived and I proceeded to wash out the stomach and continued to do so until the fluid returned almost clear, when in a struggle the patient withdrew the tube.

A messenger then brought information that the tabloids dispensed by the chemist contained red iodide of mercury, one-twentieth of a grain each.

With some difficulty, but without much confidence in the antidote, I administered by mouth the white of an egg in milk.

In the patient's bedroom I found a glass tumbler with traces of beef tea and the greater part of a tabloid adherent to the side of the glass; also a box marked "Poison" in which tabloids had been received.

An hour after my arrival at the house the woman's face was still dusky, the conjunctiva was insensitive, the pupils were dilated; respiration was natural and pulse fairly good, 80 a minute. After repeated enquiry a reply was obtained as to pains, there were none.

Three hours later the patient appeared to be dazed; she knew—or professed to know—nothing of the afternoon's proceedings, except that she had mixed seven tabloids in beef-tea and swallowed the compound. She complained of soreness in the throat and burning pain in the stomach. Nothing abnormal could be seen in the throat. The eyes had regained their usual appearance and almost their normal sensitiveness.

On the following morning I learned that the patient had been much disturbed by repeated action of the bowels; there had been no vomiting, and she was otherwise fairly well. I was unable to get definite information as to the time at which the poison had been taken. Its administration was soon followed by stomach pain. The woman was said to be in the habit of drinking to excess at times and to have had some wine in the morning before she took poison. I did not detect a vinous odour in the vomited matter.

Dr. J. A. G. Hamilton, whose patient Mrs. B. was, informed me that later in the day there had been frequent twitchings of the muscles of the legs, especially of the calves, but that no further inconvenience was observed.

I bring this case before the Association, because poisoning by mercuric iodide appears to be rare. After a careful search through medical periodicals of the past ten years and in works on toxicology, I have failed to discover a recorded case.

The chemist, who dispensed the tabloids, informed me that twenty had been supplied to the patient, she and her daughter accounted for thirteen used in the preparation of lotion, leaving only seven, the number said to have been taken; one of these escaped solution almost entirely; the quantity of mercuric iodide actually swallowed can, therefore, scarcely have exceeded six-twentieths of a grain.

The "British Pharmacopœia" gives the sixteenth of a grain as the maximum dose of biniodide, some books a few years older give an eighth of a grain, while the Lexicon of the New Sydenham Society gives a quarter of a grain as a maximum. Several works on poisons and therapeutics refer to the biniodide as a powerful irritant poison, but I have been unable to find any reference to poisonous doses. In Lockwood's "Aseptic Surgery" it is stated that biniodide of mercury has almost twice the germicidal value of perchloride. Whether its homicidal value is proportionate I do not know. Lockwood states that "it is claimed for biniodide that it is less poisonous than the perchloride of mercury." He there refers to its action in a wound, and suggests as one reason for its alleged greater safety that no albuminate of mercury remains in the closed wound to be absorbed later. The fact that biniodide does not combine chemically with albumen may be expected to increase its relative potency in the stomach as, in solution, it is likely to be absorbed quickly.

With the thought that some light might be thrown on the poisonous qualities of biniodide I used the thirty tabloids remaining in the bottle from which twenty had been dispensed, in the treatment of a cat. Having obtained a large strong cat, I gave four tabloids on Tuesday and four in one dose on Wednesday without apparent effect on health. This morning six tabloids were given with food for breakfast and at mid-day twelve tabloids for dinner. I visited pussy before coming to the meeting and found her dispirited and careless about her toilet but not seriously disturbed in health.

Mrs. B. may be especially susceptible to the agent employed. If so it is a matter of interest that six-twentieths of a grain of mercuric iodide have produced so serious a condition. I have little doubt that without interference death would speedily have ensued.

A member has expressed surprise that I ventured to use apomorphine in this case, in view of its depressing effects. Experience in a considerable number of cases has led me to value apomorphine very highly, when, for any reason, it appears desirable to unload the stomach quickly. I have used it a dozen times, perhaps, in cases of insensibility from alcoholic or other poison · only once have two minutes elapsed before the occurrence of sickness; in the exceptional case, three and a half minutes intervened between the injection and sickness. There has been no failure to cause emesis, nor have I observed any serious depression following. Invariably, the patient has been aroused to some extent by sickness, and distinct advantage has been gained. I propose to guard against risk as far as possible, by using in any future case apomorphine and strychnine combined.

In the case detailed I was alone with the patient at the outset, no ordinary emetic could be used, and without some assistance the stomach tube was impracticable. It appeared to me desirable to take some risk in order to get rid as soon as possible of an unknown poison and in this instance the end justified the means adopted.

[Read at the October Meeting of the South Australian Branch of the British Medical Association.]

CHRONIC ENDOMETRITIS AND ITS TREATMENT.

By G. Cuscaden, L. et L. Mid., R.C.P. et R.C.S. Edin., Hon. Surgeon Women's Hospital, Melbourne, Port Melbourne.

When I speak of chronic endometritis, I do not for one moment wish to convey the idea that the disease is confined to the internal or mucous coat of the uterus, the endometrium. Such an authority as De Sinety lays it down that it is impossible to say that a chronic inflammation in a mucous coat so thin would be likely to remain in that structure without spreading to the subjacent tissue, the parenchyma becoming infected from the glands through their communicating with the lymphatic spaces. Professor Corneil describes a chronically inflamed uterine cavity thus: "The mucous coat has not the whitish appearance, the smooth surface, and the particular firmness it presents under normal conditions. Its surface is irregular, puffy, soft, pulpy, and in appearance and consistence resembles currant jelly. This flabby layer is easily removed and tears very easily. In chronic interstitial endometritis, the formation of cicatricial tissue so strangulates the gland substance that an atrophic condition results with probable destruction of the glands. In the polypoid form there is an abnormal development, fungoid in character, of the mucous coat with flabby fungoid excrescence glands undergoing cystic degeneration."

These, according to Corneil, pass beyond the deep layer of the mucous coat, and grow down between the subjacent muscular fibres. According to Schröder, endometritis post-abortum is almost always interstitial, but the glands become diseased in the long run. Owing to the incomplete involution of the decidua vera or serotina, more or less extensive islands of decidua are seen to persist, and around them a very active proliferation of small cells takes place.

These preliminary notes gathered from such reliable sources are sufficiently convincing to permit me to offer a few suggestions in the treatment of this most intractable disease. I am confining myself strictly to the operative treatment of chronic endometritis, whether it be of the catarrhal, purulent, or hæmorrhagic type. And, presuming that no secondary complications have arisen in the uterine appendages, the treatment of an ordinary case of endometritis consists in dilating the cervix and scraping away with a curette as much of the unhealthy endometrium as the skill of the operator permits. Some authorities recommend plugging the uterine cavity with gauze, which is left in for so many hours or days. Others object to plugging and content themselves by cauterising the denuded surface with such applications as iodised phenol, carbolic acid, or even nitric acid. Some later authorities decry the use of the curette and are satisfied with cauterization only. Now, I have always thought that the treatment was too hurried and that it was too unscientific to expect a diseased surface as the denuded surface really is, to immediately develop a healthy covering—a new endometrium. My treatment is, therefore, to first thoroughly dilate the cervical canal and remove with a curette as much diseased mucous membrane as I possibly can. Having carefully washed out the debris, I (except in cases of purulent endometritis) gently apply a strip of lint or gauze soaked in ordinary red lotion of iron phosphates, and this is replaced daily until I can feel satisfied that the uterine canal has returned to its normal condition. Absolute rest in bed must be insisted on during the treatment, and the cervical canal must be kept open by the occasional passage of a Hegar's dilator. One narrow strip of lint introduced with the sound to the uppermost part of the canal will keep in touch with the whole surface, and encourage involution.

[Read at the October Meeting of the Victorian Branch of the British Medical Association].

CLINICAL AND PATHOLOGICAL NOTES.

Strangulated Inguinal Hernia in Infant aged 16 days (weight, 6lb. 4oz.)—Operation—Recovery.

A MALE infant, born May 31st, was suddenly seized early in the morning of June 17th with profuse vomiting, followed in a few hours with collapse. Dr. Badock (of Fremantle) kindly visited on my behalf, and diagnosed the case as one of strangulated left inguinal hernia. Gentle taxis proving unavailing, he informed me, and I determined to operate immediately.

Operation.—(Ten hours after strangulation). Drs. Davy and Badock kindly gave me assistance A longitudinal incision one inch long, was made over the long axis of the tense swelling, which was situated in the left inguinal region, extending from the external abdominal ring to about half away into the scrotum. The size and shape of the swelling were similar to that of the two terminal digits of the adult little fingers. After incising the tissues superficial to the sac, the latter was opened, and about two inches of small intestine came into view. The condition of the gut was good, being purplish and shining, except at the point of strangulation, where it was purplish-black, though still in good condition. The internal ring was carefully incised forwards, and the gut was replaced within the abdomen without much difficulty. The walls of the sac were puckered up by means of a silver wire, in order to oppose as great an obstacle to the return of the hernia as possible. The wound was then treated in the usual closed fashion. The infant was then circumcised, since a tight phimosis was present, and it was thought advisable to remove this predisposition to straining. The bowels acted three times during the night after the operation.

After History—Nothing untoward arose during the period of healing of the wound. The infant steadily increased in weight, gaining 22oz. in 17 days, under the influence of a diet consisting of peptonized milk and barley water.

Remarks.—This case is interesting and deserving of record on account of puny size and early age of the infant. The hernia was of the true congenital type, and there is a tendency to the production of a similar form of hernia on the opposite side. A double inguinal truss is now worn, and I have every confidence in the ultimate cure of the affection.

HERBERT HORROCKS, M.D., B.Sc. LOND,
Hon. Asst. Gynæcologist Public Hospital, Perth, W.A

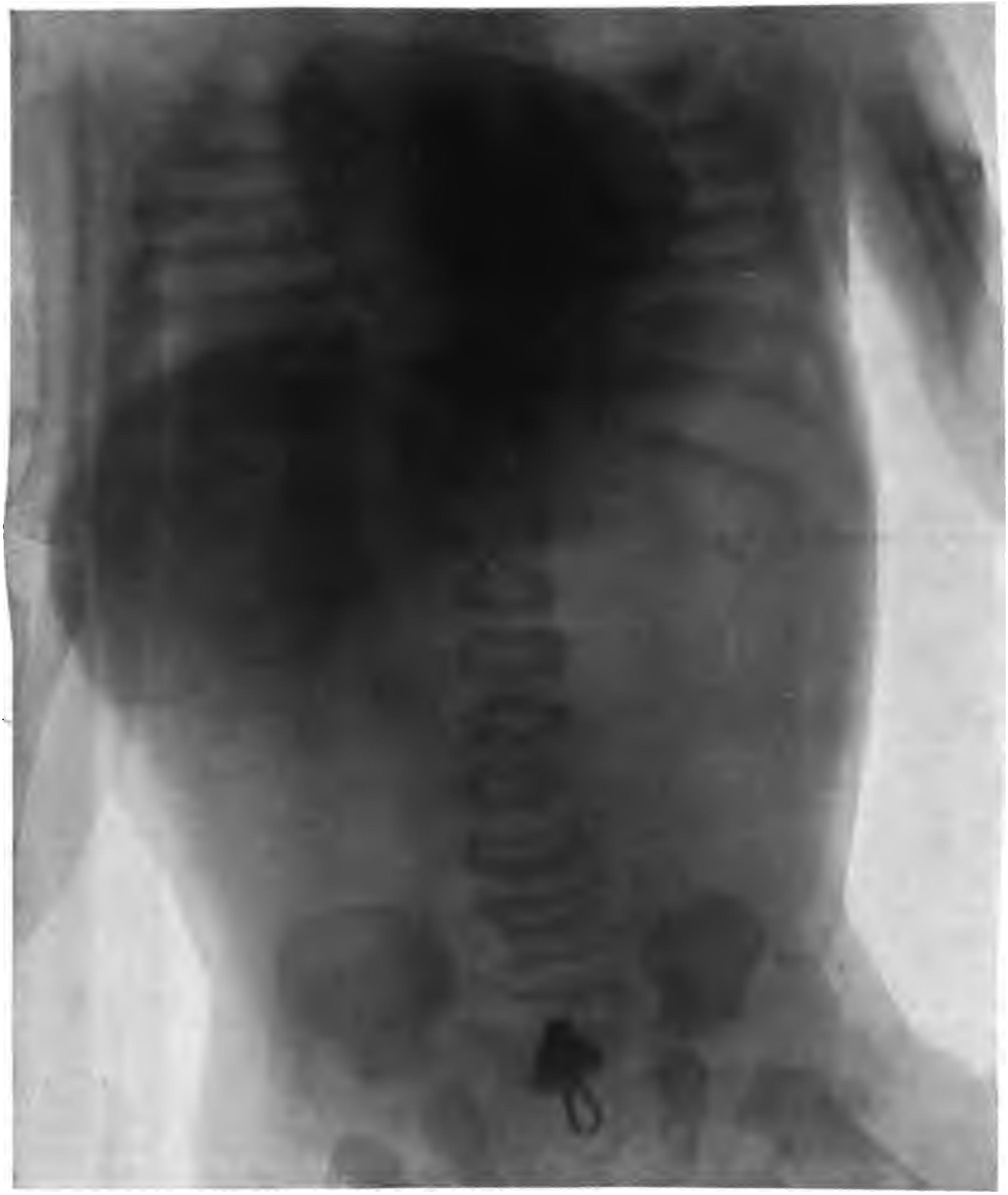
Skiagram showing Locket and Ring attached swallowed by Child aged 10 Months.

E. T., aged 10 months, was brought to the Sydney Hospital by the mother, who stated that the child had swallowed a locket with one or two rings attached about eight hours previously.

The child, a very sickly-looking one, appeared to be in some distress. Chloroform was administered and a skiagram taken.

The plate used was an "Imperial Special," the tube a soft one at a distance of 18 inches from the plate, exposure four minutes, and with a current of five ampères and coil giving an eight-inch spark.

The locket was then seen to be lying in the rectum, and after the administration of an olive oil enema the child passed it without any inconvenience, and was taken away quite well. The skiagram shows very clearly the heart and liver, and I think I am correct in stating that this is the first skiagram published showing the whole outline of the liver so distinctly.



SKIAGRAM TO ILLUSTRATE DR. L. HERSCHEL HARRIS' NOTE ON "LOCKET AND RING ATTACHED SWALLOWED BY A CHILD AGED 10 MONTHS."

The illustration is reduced to one-fourth of the original size.

L. Herschel Harris, M.B., Ch.M., Member of the Röntgen Society of England, Hon. Skiagrapher and Assistant Surgeon, Sydney Hospital.

The Diagnostic Value of Lumbar Puncture.

(From the Pathological Department of Prince Alfred Hospital, Sydney.)

◆

The value of lumbar puncture for diagnostic purposes in doubtful cases of meningitis seems hardly yet sufficiently recognised. Its danger is slight, and the benefit to be derived from a positive diagnosis often great. Within the last fifteen months it has been performed fifteen times in twelve different cases at the Prince Alfred Hospital; of these fifteen, twelve are referred to in Dr. Gillies' recent article in the *Australasian Medical Gazette* on the epidemic of cerebro-spinal meningitis, and a full account of the results obtained is given. In three cases puncture failed to yield any fluid—in one this was shown *post-mortem* to be due to the thick, curdy nature of the pus present in the spinal canal. In no instance did untoward consequences, which could in any way be referred to the operation, follow its performance, although in one case—which eventually completely recovered—twitching occurred several times in one leg during the procedure, probably from the point of the trochar impinging upon the nerves. On the other hand, a little girl, dying unfortunately a few days later, from a state of coma so deep that no anæsthetic, general or local, was required, became sufficiently conscious to recognise her parent shortly after the relief of the high tension caused by the accumulation of fluid.

But it is not so much to these cases of epidemic cerebro-spinal meningitis, which Dr. Gillies has fully dealt with, that I wish to refer as to two other cases of different pathogenesis.

Case 1.—Frank R., *æt* 15 years, the subject of a chronic otorrhœa, to which acute symptoms had been suddenly added. These pointed either to a cerebral abscess (probably temporo-sphenoidal), to meningitis, or to both conditions together; the balance being in favour of meningitis Since, however, his condition might be explained by the diagnosis of abscess only, it was obvious that, in justice to the patient, trephining should be performed unless some absolutely diagnostic sign of general meningitis—in which case operation, even though an abscess were present, would be unwarranted—could be found. Lumbar puncture seemed a possible solution of the difficulty. On its performance, about 6♏. of a turbid fluid were obtained, smear preparations of which revealed pus cells, and a few long bacilli. Nothing remained, therefore, but to await the inevitable end. At the *post-mortem*, in addition to an extensive lepto-meningitis at the base of the brain and in the spinal cord with thick, curdy exudation, an abscess cavity the size of a mandarin orange, with ragged, greenish walls, was found in the temporo-sphenoidal lobe of the affected side. The petrous bone in the neighbourhood was carious, and a probe could be easily inserted from the external auditory meatus into the cavity. Smear preparations revealed long bacilli and diplococci (*i.e.*, a mixed infection from the ear). Had the puncture not been performed, a useless operation might have been the result with the danger of death from the anæsthetic.

Case II. is one of tubercular meningitis in a girl of 7. Marked retraction and rigidity of the neck with stiffness of the limbs somewhat suggested the epidemic disease, more especially since, but a few days before, a case of the latter, in which the *diplococcus intracellularis meningitidis* had been demonstrated in the pus cells obtained by lumbar puncture, had died in the same ward. Against this view were the longer illness and marked abdominal retraction. By lumbar puncture, half a test-tube full of clear watery fluid was obtained. On centrifugalization, amongst the pus cells a few tubercle bacilli were found. At the *post-mortem*, two days later, tubercular meningitis of the base of the brain and spinal cord, and general miliary tuberculosis (the latter yielding no signs *ante-mortem*) were disclosed. Here the justification for the operation lay only in its prognostic and diagnostic values; the comatose condition was unalleviated by the withdrawal of the fluid the temporary lessening of tension.

These two cases will suggest, as circumstances arise, many other instances in which lumbar puncture will be of value for other than its merely scientific and statistical results.

J. Burton Cleland, M.B., Ch.M. Syd.
Resident Pathologist.

Trained Male Nurse seeks engagement in mental or ordinary medical cases. Has had considerable experience in mental nursing, massage, etc., and is accustomed to travelling with patients to Europe and in the Australasian States. Unexceptional testimonials. References kindly permitted to Drs. F. N. Manning, Jarvie Hood, W. E. Warren, T. S. Dixson.
Address: R. T. O'Neill,
68 Crown Street,
Nr. William St.
(Late 17 Leicester St., Sydney.)
Telephone No. 166 William Street.

MIRROR OF HOSPITAL PRACTICE IN AUSTRALASIA.

SYDNEY HOSPITAL.

Foreign Body Removed from Peritoneal Cavity.

Under the Care of Ralph Worrall, M.D., M.Ch., Hon. Gynæcologist.

◆

This case is one of considerable interest, sufficient, I think, to justify me in placing it on record.

The patient, M.L., *æt.* 27, multiparous, married woman, was six weeks pregnant when she introduced into the os uteri a bone crochet needle, six inches long. It slipped from her fingers into the uterus, and two days afterwards abortion took place. The doctor in attendance carefully explored the uterine cavity, but could find no sign of the needle. Convalescence was normal One week after the abortion, I felt by bi-manual examination the needle lying transversely in the left false pelvis.

One week after this, when the patient was placed upon the table for operation, I failed to again locate it bi-manually. However, feeling sure that I was not mistaken in thinking I had discovered it at my first examination, I opened the abdomen, but failed to find any trace of it in the pelvis save a red spot the size of a pea in the fundus uteri, marking the point through which the needle had traversed the uterine wall. My friend, Dr. Batchelor, of Dunedin, who was present, suggested it might be entangled in the omentum. Searching for this structure, it was found rolled up in *the epigastric region*, and completely encapsuled in its lower border was the needle.

The case is a striking example of the truth of Professor Watson's theory of the chemotaxic function of the omentum. He maintains that, in the majority of instances, although not invariably, the omentum is attracted to any pus focus or enemy of any sort which has found an entrance into the peritoneal cavity, seals itself to it, covers it over, and in this way protects the cavity from general invasion as far as possible. My own experience coincides with this observation, although I have observed occasional apparent exceptions to the rule.

It also supports the generally accepted idea that peritoneal currents are from the pelvis towards the diaphragm. It is not a little remarkable that the penetration of the uterine walls by a bone crochet needle, and its lodgment in the cavity of peritoneum for a fortnight should have led to so little ill result. For this I think the omentum is entitled to the chief or entire credit. The *rationalé* of the occurrence was probably that the needle, smaller than the uterine cavity prior to abortion, subsequent to that event, during the contraction and retraction of the uterus, did not lie with its long axis corresponding to that of the uterus and was thus forced through the uterine walls.

The patient recovered easily from the operation, and I trust has received a warning sufficient for her lifetime.

REVIEWS AND NOTICES OF BOOKS.

Diseases of the Thyroid Gland. Part I.—Myxœdema and Cretinism. By Dr. George R. Murray, M.A., M.D. Camb., F. R. C. P. Heath, Professor of Comparative Pathology in the University of Durham, Physician to the Royal Infirmary, Newcastle-on-Tyne. London: H. K. Lewis.

This is the first part of a comprehensive work on the diseases of the thyroid gland, by Dr. George Murray, of Newcastle-on-Tyne, who was one of the first to apply practically in the treatment of myxœdema the knowledge derived from experiments on animals by Professor Victor Horsley and others.

This volume opens with a discussion of the structure and functions of the thyroid gland, and deals with the experiments conducted on monkeys by Horsley and the author himself. In some cases the symptoms which followed thyroidectomy in monkeys, disappeared when thyroid extract was administered; in others, only an improvement took place, and death resulted with acute nervous symptoms. Edmunds has obtained the same results. From an examination of the effects produced in other animals by the removal of the parathyroid glands, the author thinks it probable that the acute nervous symptoms in the monkey, such as the fibrillary twitchings, spastic rigidity, and perhaps the tremors and convulsions are largely due to the loss of the parathyroids; while the sub-cutaneous swelling, dryness of the skin, loss of hair, sub-normal temperature and changes in the blood are due to the loss of the thyroid secretion. This conclusion is also supported by the fact that the latter group of symptoms is that characteristic of myxœdema in man, which we know to be due to disease of the thyroid gland, there being no evidence as yet to show that the parathyroids are affected in this disease.

The chemistry of the thyroid secretion is not yet complete, but from observations so far made, it is apparent that the secretion contains a proteid part, which has but slight physiological action, and a non-proteid part containing iodine and phosphorus, and which seems to be the most active in the removal of symptoms due to loss of thyroid secretion.

The clinical description of the disease myxœdema is excellent, and well-illustrated by photographs of patients under the author's own care. The natural progress of cases of this disease is variable; in some the disease appears to advance slowly and steadily, while in others an apparent spontaneous arrest takes place. It is necessary to bear this in mind in view of a statement made recently to the Chicago Neurological Society by Dr. Sydney Kuh, that he had seen a case of myxœdema cured by a short course of thyroid extract, and in which the symptoms did not return though all treatment by this remedy had been abandoned. Another fact of importance to bear in mind is that while the disease myxœdema is most certainly due to a fibrosis and concomitant destruction of the glandular secreting structures, the same clinical symptoms may result from syphilitic disease, actinomycosis, and adenoma of the thyroid gland, and treatment directed specially for the removal of these pathological conditions has resulted in the cure of the "myxœdema."

In the section on diagnosis, the difficulty in diagnosing some cases of chronic renal disease from cases of myxœdema is hardly sufficiently emphasised, and the points of distinction mentioned are not always trustworthy. On the other hand we hardly think any one would confound a case of myxœdema with one of Dercum's adiposis dolorosa, or with a case of acromegaly.

In discussing treatment the author recommends the use of the liquor thyroidei or thyroideum siccum, both of which preparations are now official in the British Pharmacopœia. Five to 10 minims of the former, or 1 to 2 grains of the latter given at bedtime are generally sufficient to remove the symptoms at first, and then keep them in abeyance. But we hardly think it necessary to continue the administration of such large doses every day. We have had cases under our observation for several years in which the symptoms can be kept absolutely in abeyance by taking one 5-grain tabloid of dry thyroid substance per week. The author emphasises from painful experience in his own practice the necessity of much caution in the early treatment of cases of myxœdema, since fatal cardiac syncope has resulted from want of due care and recognition of the enfeebled cardiac condition.

The chapter on cretinism is hardly so satisfactory as that on myxœdema, though most of the important points are referred to. With regard to treatment, the author advises the same method as in the treatment of myxœdema. No reference is made to the method of transplantation of sheep's thyroid gland directly from the living sheep to the peritoneal cavity of the cretin. The method of grafting sheep's thyroid in the sub-cutaneous tissue of cases of myxœdema was suggested by Horsley, and successfully carried out by Bettencourt and Serrano, but the grafted gland appeared unable to maintain its independent existence for any length of time, and in only one case has the improvement been maintained for more than a few months. Marked improvement, however, resulted from the implanting of a lamb's thyroid gland into the peritoneal cavity of a cretin by Dr. Lockhart Gibson, of Brisbane, and reported in the transactions of the Third Intercolonial Medical Congress of Australasia in 1892, and similar success was achieved in another case under the care of the present writer and Dr. C. J. Martin, of Melbourne. But it would appear that continued administration of thyroid extract in gradually increasing doses is the more satisfactory method of treatment, and it is certainly remarkable to note the amount of improvement which can be attained even in long-standing cases of this disease by perseverance in treament.

The volume is well worth careful study by those who are interested in this group of diseases, and we shall look forward with much pleasure to the completion of Dr. Murray's work.

G.E.R.

Love and Longitude, by R. Scot Skirving (Angus and Robertson, Sydney and Melbourne, 1901).

This is described by the author as "A story of the Pacific in the year 1901." Not the least element of interest in this book is the fact that its author is well known personally to many, and by reputation, probably, to all the readers of this journal. These will, in a special degree, recognise the many touches of exact knowledge appearing in the story. which could only have come from one of themselves. They will also appreciate the skill and grace, with which the man of medicine is successfully concealed from the eye of the ordinary reader, behind the sailor and the man of letters. The title of the book explains itself as the tale proceeds. It is appropriate and cleverly chosen, for the problem of "longitude" had much to do with the problem of "love." Both required to be solved; they possessed common factors in their solution; and both were essential to the development of the story. As for the story itself, it is a good one, a real sea yarn of the old type that we loved in the days of our youth. The boys and girls of to-day will love it, and older readers will have the nascent emotions of their young days revived. The hero is a true boys' hero; one who does just what the situation demands, whether it is exactly possible or not, but does it with due modesty withal, and wonders at his own success. The heroine is the ideal of the highest types of men. Alf. Nash, the larrikin ship's boy, the juvenile lead of the story, is a clever study in artless roguery; while the other characters, which are not at all too numerous, are drawn in good literary perspective. The tale abounds in incident; and is clean, wholesome and light. The telling is breezy, fresh, and redolent of the sea air. It makes the reader's spirits bound and his lips taste salt, and, when it ends, it leaves a desire to renew an acquaintance with "Leigh Island," which the author says, will perhaps "make another story." It may not be generally known among the author's friends that he is a recognised authority on nautical astronomy and navigation, and that the appendix (not "vermiform" this time), which is described as a "chapter for sea-faring people only," has a genuine interest for navigators. The book is illustrated with some well drawn pictures by H. Wollaston; a track chart of the Pandora's voyage, and a plan of Pandora Island, the question of whose "longitude" plays so important a part in the tale.

R.H.T.

Libertinism and Marriage. By Dr. Louis Jullien (Paris), Surgeon of Saint-Lazare Prison; Laureate of the Institute, of the Academy of Medicine, and of the Faculty of Medicine of Paris. Translated by R. B. Douglas. Philadelphia: F. A. Davis Company, Publishers.

This work, which deals with an unsavoury subject has been written with a view to preventing much of the suffering and unhappiness that follow the marriage of people suffering from an imperfectly cured blennorrhœa, often through ignorance of the consequences. It is claimed that medical men could, by their advice to the guilty party, frequently prevent such unions. The question of professional discretion is fully discussed in the introduction and the sanctity of the Hippocratic oath, that "my tongue shall be silent as to the secrets which are confided to me" is fully upheld.

Erratum.—In our issue of last month the first line of page 421 should read "*celloidin thread*" instead of "collodion thread," and likewise in line 21 of page 422.

THE AUSTRALASIAN
MEDICAL GAZETTE.

SYDNEY, 20TH NOVEMBER, 1901.

THE PROPOSED HOSPITAL FOR CONSUMPTION IN SYDNEY.

As will be seen from a paragraph in another column the Government propose to erect a wooden building as a temporary hospital for consumptives at Long Bay, on the South Coast, about six or seven miles from Sydney, and a committee has been appointed to view the site and report to the Premier. We are glad that Mr. See is alive to the importance of this question and promises prompt action; but we trust that before any definite decision is arrived at, a full consideration will be given to some important aspects of this matter.

It has been suggested that this hospital should fulfil two functions. First, it is to be a home for the reception of advanced cases of pulmonary tuberculosis, cases which are now accommodated, either in the consumptive wards of the Destitute Asylum at Liverpool, or at the similar institution at Newington, or are allowed to remain in their own homes to die. The advantage of having these patients well cared for in a properly equipped consumption hospital cannot be over-estimated, for by their removal to hospital they cease to be a menace to the health of the inmates of their homes, and they are placed under circumstances most favourable for a temporary amelioration of their condition, if nothing more. Of course, patients in this condition cannot at present be compelled to go to hospital, but it is hoped, that in time, by the education of public opinion, and the spread of the knowledge of the danger of infection in this disease, that patients will voluntarily enter such an institution as is now proposed. We would point out further, that though these patients may have the disease in an advanced stage they may not be absolutely incurable, since we know that great improvement does sometimes occur in cases where we least expect it. Hence the hospital should not be branded as a reception house for incurable cases, even though its inmates may all have pulmonary tuberculosis in an advanced stage; and every care should be taken that the site selected should be one thoroughly suitable, with all appropriate accessories for the modern treatment of the disease. Second, it is proposed that this hospital shall also be used as a reception house for patients in the earlier stages, where they can be carefully examined, temperature and weight recorded, the sputum tested, and, perhaps, in some cases the reaction to tuberculin observed. These patients, if found suitable, can then be drafted off to country sanatoria, or remain in the institution for further treatment. If the hospital is to fulfil these two functions care must be taken to separate and classify the cases, and it appears highly desirable that a staff of visiting physicians should be appointed in addition to the two or three resident medical officers usually employed in Government institutions. But if the Consumption Hospital is to be erected at Long Bay, provision must still be made at the metropolitan hospitals for the reception of cases of pulmonary tuberculosis suffering from the acute complications of the disease, such as hæmoptysis, pneumothorax, etc. These patients must be placed in special isolation wards, and we understand that provision will be made in the new additions to Prince Alfred Hospital, Sydney, for two small wards, one for males, and one for females, for this purpose.

The site suggested by Mr. See may be an admirable one from its being some distance from Sydney, and yet easy of access by tram, and from the fact that a large area of Crown land is available for the purpose. But we feel that these advantages may be discounted by its close proximity to the sea coast, since we know by experience that phthisical patients, particularly those with any lung complications, do badly at the Coast Hospital. If, however, a site can be secured further inland, even if less easily accessible, where the climatic conditions are more favourable for patients in all stages of the disease, this should be chosen in preference to that at Long Bay. We learn that at the Field of Mars, between Beecroft and Carlingford, there is some Crown land available at an elevation of 400 or 500 feet. This is admitted by all to be an admirable climate for tubercular patients, and it may be worthy further enquiry and inspection by the committee before finally committing themselves to the site at Long Bay.

We hope, however, that the proposed wooden building will not be called upon to do duty for an unlimited period, and that in the near future Sydney will possess a hospital for consumption worthy of its reputation.

THE MEDICAL OFFICERS OF THE NEW SOUTH WALES LUNACY DEPARTMENT.

DURING the passage of the Estimates of Expenditure through the State Legislature recently, the salaries of all the medical superintendents of the Hospitals for the Insane were reduced by £100 per annum.

This action on the part of Parliament we can only regard as disastrous to the welfare of the medical staffs of these hospitals. All of these gentlemen have been for many years in the Lunacy Service; they have rendered excellent service and well deserve an increase rather than a decrease in their salaries, and we sincerely hope that before the Estimates are finally passed a successful attempt will be made to restore the amounts which have been deducted.

For some time past the medical department of the Hospitals for the Insane has been undermanned, and Dr. Sinclair has had considerable difficulty in securing the services of medical men at these institutions. No doubt one of the objections raised by medical men against entering the Lunacy Service is that they thereby become Civil Servants, and there is no certainty that their salaries, even if moderate ones for professional men, will not be reduced when the Estimates of Expenditure are before the Legislature; and further, that they will be constantly liable to interference in their work by members of Parliament who champion the cause of some aggrieved party.

A large amount of study is now being directed all over the world to psychiatry, not only in its scientific, but also in its therapeutical aspects. Well equipped pathological laboratories have been established in connection with Hospitals for the Insane in Sydney as well as in Great Britain and America, in which a large amount of good work is being done in the elucidation of the problems of the etiology and pathology of the various forms of insanity. Quite recently at Claybury Asylum in England, an additional laboratory has been opened for the experimental study of mental disease. The medical officers of the Hospitals for the Insane in the future must be men thoroughly conversant with the scientific aspects of psychiatry. But we cannot expect to get good men unless they are well paid and freed from financial worries as well as from liabilities to petty annoyances. It is, too, false economy to render the medical service unattractive to good men, since the proportion of recoveries amongst the inmates of the asylums must depend upon the amount of care and study bestowed upon each case; but if such care and attention is not possible, the number of incurable cases remaining in the institutions will be increased, and the expense of maintenance will be greater. The comparatively high rate of recoveries during the year 1900, as given in Dr. Sinclair's Annual Report, bears testimony to the amount of attention and care bestowed on the patients at our Hospitals for the Insane.

There is ample scope in the work at the asylums to engage the attention of earnest students, and in view of the increasing amount of competition in general practice, we hope that some of the graduates of the Sydney University will be induced to offer their services in this department of medical work, and instead of having to endure the weary waiting for patients or the drudgery of lodge practice, the young medical man will be able at once to secure an income and a house, with abundant opportunities for doing a large amount of good work. We understand that there are now vacancies for at least two junior medical officers, and no doubt Dr. Sinclair will be glad to receive offers of service from any competent medical man who is in search of an appointment.

THE MONTH.

The Editorship of the "Australasian Medical Gazette."

In accordance with the recent alteration in the Articles of Association of the New South Wales Branch of the British Medical Association, the Council of the Branch at its meeting held on October 25th, unanimously elected Dr George E. Rennie, of Sydney, as editor of the *Australasian Medical Gazette.*

To our Readers

We wish to direct the attention of our readers to the series of special articles which we intend to publish on the "Fight against Tuberculosis in Australasia." The first of these dealing with the question in New South Wales appears in another column. We shall publish a Special Congress Supplement with our issue in January next, giving all details as to meetings, social functions, hotels and boarding-houses, etc., in Hobart. In our issue in February next we propose dealing particularly with the question of medical education in Australasia. Special articles dealing with the different aspects of this question will appear in that number, and full details as to the curricula at the different Australasian medical schools will be given.

Supervision of Private Hospitals.

In answer to a question by Dr. Ross in the New South Wales Legislative Assembly, the Colonial Treasurer stated that the matter of the licensing and supervision of private hospitals was under consideration by the Government. Our readers may remember that in the fourth report of the Royal Commission on Public Charities the following recommendation was made:—"That all private hospitals be placed under government control provided for by Act of Parliament in some such manner as exists in the neighbouring State of Victoria; and that they only be allowed to continue their work under a license granted after inspection by a competent authority." We believe that a Bill to provide for this is now being drafted and will shortly be introduced by the Government into the Legislative Assembly.

Vaccination in New South Wales.

"We are practically an unvaccinated community!" So we are told by the authorities of our Board of Health. This should not be so, since we are always in danger of having smallpox introduced into our midst, and since we have in vaccination a simple and efficient protection against this disease. It is not always that the advocacy of sanitary measures and precautions will lead at once to an increase in the medical practitioner's income. But a little energy on the part of the general practitioner in advocating vaccination may lead to an increase in his professional income, and at the same time confer a great benefit on the community at large. In a country town in New South Wales a medical practitioner and Government vaccinator recently received a sum of £100 in fees for vaccinations at half-a-crown a case. This fact may stimulate other practitioners, not only to preach but to practise vaccination in their districts.

Hospice for the Dying, Sydney.

This Institution was founded by the Sisters of Charity of St Vincent's Hospital, Sydney, in 1890. The reason of its inception was a wish to avoid sending away unaided any applicants in urgent need of relief who were practically debarred either by the hopelessness or the nature of their maladies from admission to a general hospital. The original hospice, a cottage in the grounds adjacent to the hospital, contained twelve beds, and admitted on an average 110 patients per annum. Of these the majority died in the house, while others, temporarily relieved, were enabled to return to their homes. As might be expected, advanced pulmonary tuberculosis furnished a large percentage of the cases. The building being in many ways unsuitable and unequal to the demands for admission was demolished last year, and a new building has been erected on the same site at a cost of £6,650 to accommodate 40 patients. This was formally opened for the reception of patients by the Cardinal on October 24th.

Sydney and Suburban Provident Medical Association.

The annual report of the working of this Association presented to a meeting of the profession of Sydney and suburbs held on October 29th last, shows a steady increase both in the number of financial members and in the amount distributed in dividends to the active medical staff. During the year the dividend has been at the rate of 17 shillings per member per annum. This is, of course, for medical attendance only, an additional sum of eight shillings per member per annum being paid to the chemists employed by the Association. Very stringent regulations are enforced to prevent canvassing, and medical men may rest assured that the Committee are most anxious to prevent any interference with their private patients who can afford to pay ordinary medical fees. The wage limit is strictly enforced and several names have been struck off the list on proof being furnished that their income exceeded the limit of £200 per annum. This is essentially a society worked by medical men for the benefit of medical men, and all money received, after the necessary working expenses, amounting to about 25 per cent., have been deducted, is distributed each quarter to the members of the active staff in proportion to the number of members on their lists. We would commend this society to the consideration of medical men throughout Australasia, and the Committee will, we feel sure, welcome any criticisms or suggestions that may be offered upon its working, and the honorary secretary, Dr. Acland O'Hara, will gladly furnish information and send literature illustrating the practical work of the institution on application to him at the office, 121 Bathurst Street, Sydney.

The Queen Victoria Memorial Pavilions, Prince Alfred Hospital, Sydney.

The Public Works Committee having considered the proposal of the Government to expend the sum of £45,000 on additions to Prince Alfred Hospital, Sydney, have unanimously arrived at the following conclusion :—

> Provided that the cost does not exceed the estimate, and that the plans are amended in the details admitted by the Government Architect to be capable of improvement, the committee are of opinion that the proposed additions should be carried out. It is clear from the evidence that the extra number of beds asked for are required, and though the provision for operations and for clinical instruction appears on the plans to be somewhat extensive, the evidence shows that it is justified by the fact that the hospital is pre-eminently a surgical and teaching hospital. The additions are justifiable also on the grounds that the institution is one to which patients come from all parts of the State, and even from other States, and that the large majority of them are of the poorer classes who pay little or nothing for their treatment.

At the meeting of the Board of Directors of the hospital on October 17th, a vote of thanks was accorded to Professor Anderson Stuart for his indefatigable exertions on behalf of the scheme.

The Federal Tariff and the Hospitals.

In consequence of the duties imposed by the new Federal Tariff on medicines and foodstuffs it is stated that the cost of maintenance of the hospitals will be considerably increased. At Prince Alfred Hospital, Sydney, the increased expenditure is reckoned at £750 per annum. The Sydney Hospital authorities estimate their increased expenditure at £1,000 per annum.

The Bubonic Plague.

On Thursday last, Nov. 14, a case suspected to be one of bubonic plague was reported to the Sydney Board of Health. The patient, a youth of 17 years, had been working in a produce store, and resided in Alexandria. He was removed to the Quarantine Hospital, presenting the usual symptoms of plague; a gland in the right inguinal region was enlarged. In the serum removed from this gland the bacilli of pestis were found, none were found in the blood. The patient is doing well, and no further cases havebeen reported.

A Crematorium for New South Wales.

At a meeting of the Council of the Cremation Society of New South Wales held last month, it was resolved to erect a crematorium in Sydney from plans and specifications which had been prepared; these were ordered to be submitted to the Board of Health for approval, and a committee was appointed to wait upon the Minister for Lands with regard to a site for the erection of the building.

The Notification of Infectious Disease.

A medical practitioner in a country town in New South Wales was recently fined 10 shillings and costs for failing to notify to the local authority a case of enteric fever. We understand that similar proceedings have been threatened in another case unless some satisfactory explanation is forthcoming We hope that this action on the part of the Board of Health will be a reminder to medical men of their duties under the Public Health Act. It is no alleviation of the offence to allege, as has been done, that no good has resulted from the notification of infectious disease, and that when cases are notified either no investigation has been made, or at any rate no efficient disinfection of the surroundings of the patient has been performed.

A Hospital for Consumption in Sydney.

As a result of the meeting held at the Sydney Town Hall last month to urge upon the Government of New South Wales the necessity for a hospital for consumption in Sydney, a large deputation representing the medical staffs of the metropolitan hospitals and some laymen waited upon the Premier. The deputation was introduced by his worship the Mayor of Sydney, Sir James Graham, who explained that they wished to impress upon the Government the need for a hospital of 200 beds in the immediate vicinity of Sydney for the reception of patients suffering from pulmonary tuberculosis. It was necessary to have a place to which consumptive patients could be sent, and from which they could be drafted off to other institutions. It was represented that these patients while in their own homes were a source of danger to others, and it was in the interests of the whole community that they should be removed to a suitable hospital. £50,000 would be sufficient for this purpose. The Premier gave a sympathetic reply, and as it was a matter of urgency he promised to place on the estimates at once a sum of £5,000 or £10,000 for the purpose of erecting a wooden hospital at Long Bay as a temporary expedient. A committee of the deputation has been appointed to view the proposed site.

Sanatorium for the Open-Air Treatment of Pulmonary Tuberculosis in New South Wales.

The Committee of the Queen Victoria Homes for Consumption has recently purchased Mr. Kelso King's property at King's Tableland, on the Blue Mountains in New South Wales for the purpose of erecting upon it a sanatorium for the open-air treatment of pulmonary tuberculosis. The site is fairly well sheltered, and the buildings upon it are well suited for administrative purposes. Plans are now being prepared by the honorary architects, Messrs. H. C. Kent and G. Sydney Jones, for the necessary additions for the accommodation of ten to fifteen patients. We understand that it is the intention of the Committee shortly to appoint a resident medical director to the Institution at a salary of about £300 per annum. This is not a very large salary, but it is thought that some medical man, who may himself be a sufferer from pulmonary tuberculosis in an early stage, or in delicate health otherwise, may be willing to take this appointment. Private practice will not be allowed in addition. Further particulars can be obtained from the Hon. Secretary, Dr. Cecil Purser, Lewisham, N.S.W.

Cancer in South Australia.

SOME few weeks ago a deputation waited upon the Government of South Australia to represent the necessity for the provision of a suitable building for the reception and treatment of cancer patients. At present the sole refuge of such patients is the Home for Incurables and as the accommodation there is limited, and the disease is said to be more prevalent than it used to be, the majority of applicants die in their own homes amid surroundings of great discomfort and distress before their turn comes for admission. It is understood that the Government propose to make an advance to be covered by funds expected by the Charity Commissioners for the erection of a cancer ward in the grounds of the Adelaide Hospital. From the latest returns of the Registrar-General we learn that the deaths from cancer in South Australia last year were the most numerous ever recorded, and it is significant that the rate of mortality has been steadily rising for the last 16 years for which the figures are given. In 1885 the rate per 1,000 of population was 0·32, and in 1900 it was 0·59.

The Intercolonial Medical Congress, Hobart, 1902.

Dr. Gregory Sprott, the General Secretary of the forthcoming Intercolonial Congress at Hobart in February next, writes as follows:—

> "We have invited the Premiers of the different States, and, also, the Mayors of the capital cities to send delegates to Congress. The Premier here (Hobart) is writing to the other Premiers, and I am addressing a letter to the Mayors asking them to send their Medical Officers of Health to speak to the discussions in the Public Health Section. I believe we are going to do some good work, and I think there will be a big crowd present."

As we go to press we learn by telegram from Dr. Gregory Sprott that the Hon. Dr. Gamaliel Henry Butler, M.L.C., has been elected President of the Congress in place of the late Dr. R. S. Bright.

THE FIGHT AGAINST TUBERCULOSIS IN AUSTRALASIA.

I.

New South Wales.

Although Koch's great discovery and the knowledge of the true *causa causans* of tuberculosis only date from 1882, a blind, but to a wonderful extent successful, fight against tuberculosis had been maintained in England for nearly fifty years prior to that date. The observation that misery and consumption marched side by side led to many legislative measures which had for their object the alleviation of the hard conditions under which the poor lived and which reacted on the spread of consumption. Private and incorporated benevolence performed many deeds on the same battlefield. Various enactments for the improvement of labourer's dwellings passed into law in increasing numbers between 1851 and 1882. The death rate from phthisis in Britain fell from 2.679 per million in the decade 1851-60 to 2.116 per million in 1871-80, a fall of 21 per cent.

The systematic registration of causes of death came into existence in New South Wales in 1875. From that year until 1885 a steady increase in the death rate from phthisis was observed. From 1885 to the present time the fall has been regular and very great. In 1885 the death rate from phthisis per million living in New South Wales was 1,162, while that for the year 1899 was 801. The decrease equalled 31 per cent.

The death rate from phthisis in New South Wales showed no tendency to diminish until Koch's discovery had sufficient time to bear fruit in legislation, and in the altered attitude of the medical profession towards tuberculosis. The education of public opinion necessarily must precede any great advance in sanitation, and the education of public opinion in sanitary matters is almost entirely, either directly or indirectly, in the hands of the medical profession. Once the profession was convinced that consumption was preventable and curable the education of public opinion began without delay in the same direction. Legislative enactments followed in due course.

The education of public opinion, which has been so powerful a factor in the struggle in other lands, has been appreciated at its correct value and deliberately provided for here. Its elementary lessons aim at inspiring a fear of tuberculosis in the minds of the people. The knowledge of its preventability and the best means of preventing it follow. The subject was admirably summed up by Dr. Ashburton Thompson in his address from the presidential chair of the section of Public Health at the Intercolonial Medical Congress in 1899. The address should be read with care by every medical man who has taken more than a passing interest in this great question.

The issue of posters explaining in plain, pithy language the nature of consumption and furnishing directions for its avoidance have, from time to time, been issued by the Central Board of Health. The public press, more powerful as a disseminator of information in this newspaper reading land than in older countries, has been enlisted. Officially inspired paragraphs have been caused to appear at intervals explaining particular phases of the fight.

The Dairies' Supervision Act of 1886 was the first legislative enactment which definitely aimed at preventing the spread of tubercular disease within the State. It became law four years after Koch announced his discovery. It provided for the inspection of dairy herds, constituted tuberculosis in dairy cattle a notifiable disease, and forbade the sale of milk which had been exposed to the risk of contamination or infection.

The Diseased Animals and Meat Act passed in 1892 interdicted the sale of diseased meat including that affected by tuberculosis. It provided for the routine inspection of meat and the destruction of diseased animals. Regulations made in 1894 under the Abattoir Act and the Noxious Trades and Cattle Slaughtering Act of 1894 operate in the same direction.

The interests of public health were greatly advanced in 1896. In that year the Public Health Act and the Factories and Workshops Act came into being. Both these acts have achieved much good in the direction of the control of tuberculosis. The former was closely modelled on certain portions of the English Public Health Acts. It strengthened the system of the local control of the public health which was inaugurated by the Dairies' Supervision Act and, in the city of Sydney, by the Sydney Corporation Act of 1879. It provided for the appointment of Medical Officers of Health in populous districts with considerable administrative powers. Its influence on the fight against tuberculosis though indirect has been extremely important. It has long been recognised that insalubrious dwellings are among the most powerful adjuvants to the spread of tuberculosis. The Public Health Act was the first legislative attempt to improve the dwellings of the poorer classes in New South Wales generally, though in the City of Sydney alone the local Acts of 1879, before referred to, contained clauses operative in that direction. In the opinions of most sanitarians the struggle against consumption in England has owed most of its success to the improvement in the dwellings of the poor which has been witnessed in the last half century. The Factories and Shops Act, by improving the conditions under which the workers within doors pass their working hours, has been of great value.

From the early days of hospital foundations in the State consumptive patients have been treated in general hospitals, supported to some extent by private subscriptions but heavily subsidised by Government. The first attempt to establish a hospital for consumptives only was in 1876. In that year Mr. Goodlet founded the Thirlmere Home for the consumptive poor in the hilly country near Picton, about 50 miles from Sydney. It was intended for the care and treatment of incurable cases. For 17 years Mr. Goodlet maintained the home at his own expense, achieving a noble work. In 1893 he handed the hospital over to the public, and a committee of gentlemen was appointed by the body of subscribers to control it. From that year the hospital was supported entirely by private subscriptions until 1899, when Government assistance to the extent of £500 was granted. A public movement in the direction of founding a new consumptive hospital to be known as the Queen Victoria Home for Consumptives, resulted a few years ago in the collection through private donations of a considerable sum of money. The promoters of the movement finally decided to take over the Thirlmere Home, and to confer on it the new title. At the present time the hospital does not receive incurables, but patients who can reasonably be expected to recover sufficiently to do some light work. The hospital can accommodate 40 patients, mostly of the class who cannot afford to contribute to the cost of their own maintenance and treatment. The committee has within the last few months purchased a site with a house and grounds on the Blue Mountains for use as an open-air sanatorium for incipient cases among the poor.

Pauper consumptives of the incurable class are cared for by the Government at the Liverpool Benevolent Asylum, not far from Sydney. A considerable number of consumptives are still treated in the general hospitals of Sydney. Many patients suffering from incurable phthisis are cared for in their last days at St. Vincent's Hospice for the Dying at Darlinghurst.

So far as is known only one private sanatorium for the treatment of consumptive patients exists in the State. It is situated near Leura in the Blue Mountains, and is managed by the widow of a medical practitioner, who has had personal experience of the treatment adopted at Nordrach. Needless to say this institution is intended to serve a wealthier class of sufferers than those served by the Queen Victoria Homes.

Although it is only within very recent times that municipal endeavour in New South Wales has become at all active in the battle, it is a hopeful sign that something has been attempted. The authorities of the city of Sydney have been active in suppressing expectoration on the footways of the streets with a success in the purifying of the condition of the pavements which is astonishing. The Council has impressed on the Government the need that exists for extending the non-spitting ordinance to the tramways and railways, which are under Government control. Other municipalities in the State are following the lead of Sydney. The municipal disinfection of dwellings in which a death from phthisis has occurred, or which have been vacated by a phthisical patient, is performed within the city of Sydney, and it is one of the most important practical measures which can be undertaken. For it is within doors where the bactericidal effects of sunlight and fresh air are minimised, that common sense and experience indicate that infection lingers and maintains its virulence. Pity it is that the straitened means of municipal bodies in New South Wales generally have prevented them as yet from following the example of Sydney in this respect. The corollary to the disinfection of dwellings after phthisis is the notification of the same disease. It is in this direction and in the segregation and treatment of phthisical patients in sanatoria and hospitals that we may expect the greatest advance in the immediate future. The notification of consumption is a delicate matter, and will have to be enforced with much circumspection. It should interfere little if at all with the ordinary life and business of the notified person. Its object should be the instruction of the patient by means of leaflets or otherwise in the best means of preventing the spread of his malady to others, and to obtain the fullest information as to the movements of such patients in order that infected dwellings may be promptly and invariably disinfected whenever they are vacated by a person suffering from phthisis. The question of the need for additional hospital accommodation for consumptives is occupying much attention in Sydney at the present time. As the outcome of several meetings of medical

men and others interested in the subject, a deputation waited on the Government, and in response to its representations obtained a promise that measures would be taken for the immediate erection of a wooden hospital to serve as a stopgap until a more permanent structure could be provided.

OBITUARY.

RICHARD STONEHEWER BRIGHT, M.R.C.S. ENG., L.S.A., L.M., PRESIDENT ELECT OF THE SIXTH INTERCOLONIAL MEDICAL CONGRESS OF AUSTRALASIA, 1902.

ONE of the most notable figures in the medical profession of Tasmania has been removed by the death of Dr. R. S. Bright which took place at his residence Macquarie Point, Hobart, on October 28th. Some few months ago he had a severe attack of influenza, which seriously affected his heart. He continued to conduct his practice, and was about among his patients on Sunday as usual. He retired to rest at about 11 p m. apparently quite well. At 7.15 a.m. he was sleeping quietly, and a little over an hour later on Mrs. Bright going to his room, she found him in a critical condition. Drs. Butler and Sprott were immediately summoned, but life was extinct before either arrived. He had died in his sleep without a struggle.

Richard Stonehewer Bright, M.R.C.S. Eng., L.M., and L.S.A., was born in South Audley Street, London, in 1835, and was the son of a London medical practitioner—Dr. Richard Bright—who came to Tasmania in 1842, and practised his profession here for 20 years, dying in 1862. He was educated at Christ's Hospital and King's College, London, and served his articles with Mr. Fram, surgeon, in the city of Derby. In 1857 he passed his examination for membership of the Royal College of Surgeons and L.M., and the following year that of L.S.A. London, having been for four years previously (from 1854 to 1858) pursuing his studies at King's College and Hospital, London.

He began the practice of his profession in Hobart in 1859, since which time he has carried on a large and lucrative practice. Besides his ordinary family practice he was an honorary medical officer of the General Hospital for over 40 years. He was much interested in the welfare of that institution, and many of the improvements there were due to his energy. He was responsible for the erection of the present operating theatre, and prior to his resignation was engaged in procuring an X Ray apparatus. A month ago he retired from the hospital staff, and no better testimony of his work there could be given than the resolution of the Board passed at its last meeting. "That the resignation of Dr. R. S. Bright as honorary medical officer of the board be accepted, the board sincerely regretting that he finds it necessary to relinquish a position he has so long and honourably filled. The board also places on record its sense of the very valuable services rendered to the hospital, and, indeed, to the community generally, during a period of over 40 years he has been connected with the institution, services which have been unselfishly and ungrudgingly performed, without fee or reward, save the satisfaction of knowing that he was doing his duty. Hundreds of patients have been under his care who will retain lifelong remembrance of his assiduity and kindness. The board trusts that Dr. Bright will be spared to enjoy the rest and retirement he is seeking." On the occasion of his retirement from the hospital, the medical profession wishing to testify their appreciation of his services, gave him a complimentary dinner less than a week before he died. Few who were there will forget his expressions of gratitude for the confidence they retained in him after his long experience in the profession.

In 1877 he was appointed chief medical officer to the A.M.P. Society, a position which he filled at the time of his death. He took a keen interest in all matters pertaining to the profession. As president of the Court of Medical Examiners, president of the Medical Section of the Royal Society, member of the Central Board of Health, Member of the Council of the Medical Defence Association, he was ever responsive to the call of duty. He was an energetic and consistent worker, although he occasionally took a holiday. In 1886 he visited America and the old country, and has from time to time visited the other States of Australia.

In 1892 he attended the medical congress in Sydney, and the Brisbane one in 1899. At the close of the Brisbane meeting he was unanimously elected president of the next meeting which takes place at Hobart in February, 1902. He was greatly interested in the work of the forthcoming congress, and at the time of his death was working hard to ensure the success of the meeting.

Amongst his professional brethren, Dr. Bright was looked upon, above all things, as an honourable upright man. His honesty of purpose did much to win for him the warm affection of his intimate friends, and commanded the respect and confidence of those with whom his opinions at times differed. He was a lover of his profession and how faithfully and jealously he maintained the honour and dignity of it, is universally known. He had no sympathy with those whose professional conduct was questionable, and when necessary he fearlessly expressed his opinion in such cases regardless of personal consequences. Though his manner was sharp and emphatic he had a kindly heart and sympathetic nature which made him the adviser and counsellor of those in doubt or difficulties.

Of a liberal and hospitable nature and largely aided by the sympathy of a devoted wife, there are many inside and outside the profession who will long remember his unostentatious generosity. His funeral took place on October 30th, and was largely attended by the medical profession, members of the Ministry, Hospital Board, members of the Boards of other Institutions with which the deceased was associated, and the public who were desirous of paying the last tribute of respect to the memory of one they esteemed and respected. Dr. Bright was married in 1863 and leaves a widow and one married daughter to mourn their loss.

We are indebted to the Proprietors of the *Tasmanian Weekly Mail* for the portrait of Dr. Bright taken two days before he died.

We regret to record the death of Dr. CLIFTON STURT, of Bulli, N.S.W. He had been in bad health for some time past and was taking a trip round New Zealand on board the Zealandia; when at Napier he complained of acute cardiac pain and died rather suddenly. The medical evidence at the inquest showed that death was due to aneurism.

JOHANN AUGUST WEBER, M.D., Ch.D., Obst. D. Giersen, 1876; died at Tocumwal, N.S.W., on October 9th.

SIR JAMES WILSON AGNEW, M.R.C.S. Eng., M.D. Glas., who had been ailing for some time died at Hobart on November 6th, aged 87 years. He was Premier of Tasmania for twelve months on one occasion, but had held office in several Ministries.

THE LATE DR. R. S. BRIGHT, HOBART,

PRESIDENT ELECT OF THE SIXTH INTERCOLONIAL MEDICAL CONGRESS, HOBART, 1902.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales.

The regular monthly meeting of the Branch was held at the Royal Society's Room, on Friday, 18th October, 1901. Dr. Foreman, President, in the chair. There were also present—Drs. Clubbe, Sinclair Gillies, Taylor Young, Doak, McDonagh, Mary Booth, Litchfield, Jamieson, Gledden, Crago, Rennie, R. H. Jones, Binney, Herschel Harris, Hankins, Julia Carlisle Thomas, Harriett Biffin, Reiach, Dixson, Megginson, Flynn, Kirkland, Caleb Terrey, West, F. W. Hall, Kater, Shand, Worrall, Palmer, J. A. Dick, Harold Browne, Gordon Craig.

Visitor, Dr. Ellen Wood.

The minutes of the previous meeting were read and confirmed.

Mr. **Clubbe** showed a child, aged 15 months, from whom he had removed a renal sarcoma weighing two pounds. The child was in a miserable condition when it first came under observation, pale and thin with a quick, feeble pulse. The tumor seemed to occupy nearly two-thirds of the abdominal cavity, extending from the left side well over the middle line. The size of the tumour and the condition of the child seemed to preclude the possibility of removal with any likelihood of success, so the operation was not urged, and was only undertaken at the request of the parents, after all the risks had been explained to them. An incision was made down to the peritoneum from the seventh rib nearly to Poupart's ligament, in the left semi-lunar line. Another incision was made at right angles to this, and was carried back to the lumbar muscles, between the last rib and the crest of the ileum. The peritoneum, which had not been opened, was now stripped from the tumour. The kidney was then, without much difficulty, removed from the abdomen, and the pedicle tied, artery, vein, and ureter together. The abdominal wall was then sewn up in layers, some gauze being left in the lower part of the wound. During the operation, which the child, considering its condition, bore well, strychnine and saline solution were injected subcutaneously. After the operation the child's condition improved very much. The child was shown so soon after the operation because its parents live 400 miles from Sydney, and would be going home before the next meeting. The child's weight is 18 lb., so that the tumor weighs a ninth part of its body.

Mr. **Clubbe** also showed a ruptured kidney that he had removed from a boy aged 7. The boy was brought to the Prince Alfred Hospital, with the history that he had fallen from the roof of a shed, about fourteen feet, to the ground. He was found to have sustained a Colles' fracture of the right wrist and have a scalp wound. He was attended to in the casualty room and sent home, the mother being told to bring him back should he show any bad symptoms. After a few hours he was brought back because he had passed some blood when sitting on the chamber. When seen about 8 p.m., six hours after the accident, he was much collapsed. Pulse, 170, very small; sighing respirations. He had passed some blood stained urine, he complained of pain on the right side of the abdomen. Under chloroform there was no well-marked tumour to be made out in the region of the right kidney, but there was more fulness to be made out in the right than in the left loin. The usual oblique incision for the exploration of the kidney was made on the right side. After opening the perinephritic fascia, a small amount of blood clot was found, and the kidney was found completely ruptured transversely, the upper part lying quite loose and unattached. This was removed, and then, as the pelvis was torn, it was not thought wise to attempt to save the lower and attached part of the kidney, so, after putting a ligature round the pedicle, it was taken away. The boy soon recovered from the shock and made an uninterrupted recovery. The points to be noted about this case are the absence of any great amount of shock on his first visit to the hospital, and the absence of any distinct tumour in the right loin, such as might be expected after a severe bleeding from a torn kidney.

Dr. **Binney** said he had the privilege of assisting Mr. Clubbe at the operation, and congratulated him on the result. There was a great amount of shock, although the peritoneum was not opened and hæmorrhage was well controlled. He would like to ask Mr. Clubbe or some of the pathologists present, if leaving the peritoneal investment of the tumour behind would influence in any way the recurrence of the disease.

Dr. **Jamieson** said he should think that the intra-peritoneal route was adopted by Morris chiefly to save the time occupied by stripping back a large area of peritoneum. The wound in the peritoneum would not increase the risk of infecting the peritoneum by new growth, as the growth referred to was a sarcoma, and such growths (except the melanotic variety), spread by the blood, and not by the lymph stream.

Mr. **Crago** said Bland-Sutton, in his book "Tumours, Innocent and Malignant," stated that sarcoma of the kidney was so malignant, that there was hardly an authentic case on record where a patient had lived for a year after the removal of a kidney for sarcoma. He would like to hear how far Mr. Clubbe's experience coincided with that statement.

Mr. **Clubbe** in reply to Mr. Crago said that it was quite true that Bland Sutton, writing some eight years ago, gave it as his opinion that nephrectomy for renal sarcoma in children was absolutely unavailing. But since that time there had been many successful cases, notably Abbe's. There were cases also on record that had survived the operation five years, and were well then. Aldiberts' views were that "the results of the operation during recent years have been so encouraging that no case should be abandoned, no matter how young the patient."

The **President** stated that the next business was the confirmation of the Resolution altering Article 27 of the Articles of Association which had been passed at a special meeting of the Branch, held on September 20th. The resolution that "in Article 27, line 14, the words after the word "be," be omitted, with a view to the insertion of the words "be appointed by the Council," was then put to the meeting and carried.

Dr. **Jamieson** read a paper on "Some cases illustrating the wide spread, infectivity, of the pneumococcus of Fräenkel." (See page 469.)

Dr. **Kirkland** said he thought the symptoms referred to in Dr. Jamieson's first case, pointed rather to an abscess in the cerebellum, arising from middle ear suppuration, and although the patient recovered he might still have a latent encapsuled abscess.

Dr. **Rennie** said that he supposed they all had had opportunities during the recent epidemic of influenza and pneumonia of observing cases similar to those described by Dr. Jamieson. Marked abdominal distention, which was not relieved by the use of turpentine enemata or similar means, had been noticed by him in some severe and fatal cases; this he regarded as a manifestation of the infection of the peritoneum by the pneumococcus or perhaps the streptococcus pyogenes aureus. He was disposed to take exception to the remark of Dr. Jamieson that the apparent enlargement of the liver was due to depression of the diaphragm by the pericardial effusion. This was a common statement, but he did not think that a pericardial effusion, unless very large, could have much effect in depressing the liver. But the lung, in a state of hepatisation, was considerably increased in size, and tended to exert pressure upon surrounding structures, as was seen by the marks of the ribs on the outer surface of a hepatised lung, and hence must also press on the diaphragm and depress the liver. He was also disposed to think that, in all the cases recorded by Dr. Jamieson, in which there was before death the clinical picture of intracardiac thrombosis, and in which, after death, there was found in the right side of the heart a white thrombus extending up into the pulmonary artery, intra-cardiac thrombosis was the immediate cause of death rather than a pneumococcal septicæmia. The occurrence of a considerable degree of leucocytosis was a strong predisposing factor in the production of intracardiac thrombosis, and this was present in all Dr. Jamieson's cases.

Dr. **SINCLAIR GILLIES** remarked that, as usual, the non-fatal case in Dr. Jamieson's series was the most fruitful from the point of view of discussion on account of the uncertainty as to its nature. He asked Dr. Jamieson whether he had stained the diplococci found in this case by Gram's method, as clinically the case resembled one of cerebro-spinal meningitis. He did not consider that the cardiac symptoms present warranted the diagnosis of endocarditis, as pulmonary systolic murmurs were of common occurrence in debilitated conditions. The apparent depression of the liver noted in several cases, he thought could be explained by the fact that the livers were enlarged, weighing on the average five pounds each. He agreed with Dr. Jamieson that the cause of death in the cases in which diplococci were found in the blood was septicæmia. The finding of a gelatinous clot in the right ventricle was not uncommon in cases of pneumonia dying of exhaustion and cardiac failure, and did not necessarily warrant the assumption that death was due to the formation of a pulmonary thrombus.

Dr. **JAMIESON** in reply said he could not agree with the diagnosis of the first case suggested by Dr. Kirkland. The head symptoms were those of a basal meningitis, and the results of observations strongly suggested a pneumococcal meningitis. With reference to the downward displacement of the liver, referred to by both Drs. Rennie and Sinclair Gillies, he thought it possible that all three conditions, viz., the pericardial effusion, the solidification of the lung, and the increased size of the organ, contributed towards the production of this condition. He still thought that death in some of those cases was due to pneumococcal septicæmia, though he recognised intracardiac thrombosis as one of the modes of death in cases of pneumonia. In answer to Dr. Sinclair Gillies, he might say that the pus films in the first case were stained by Gram's method as well as by dilute fuchsin, and that the diplococci stained equally well by both. He wished to thank the members present for the patient hearing accorded to the paper, and for the interesting discussion it had evoked.

Dr. **SINCLAIR GILLIES** read a paper on "Two Cases of Laryngeal Paralysis, accompanying Mitral Stenosis," with Exhibits. (See page 466).

Dr. **HANKINS** said that in a recent work by Friedrich on "Rhinology, Laryngology, and Otology in General Medicine," many instances were given of laryngeal paralysis arising from thoracic disease. Mitral stenosis was not mentioned, but instances were given where pericardial effusion had given rise to this condition, and if such soft and elastic pressure on the recurrent laryngeal nerve could cause paralysis, no doubt a dilated pulmonary artery could do likewise.

PATHOLOGICAL EXHIBIT.

Dr. **JAMIESON** exhibited a placenta showing the effects of syphilis. The patient acquired syphilis two months after the date of commencement of pregnancy, and miscarried at seven-and-a-half months. Scattered throughout the maternal surface of the placenta were numerous small wedge-shaped hæmorrhagic areas resembling recently formed infarcts. In size they varied from that of a split pea to that of a hazel nut. The smaller branches of the umbilical vessels showed marked evidences of endarteritis obliterans, and in all probability the areas referred to above were due to thrombosis occurring in some of the smaller umbilical arteries affected by endarteritis.

Dr. **WORRALL** exhibited a crochet-hook which he had removed from peritoneal cavity. (See p. 480.)

Dr. **CALEB TERREY** said he had removed a similar needle from the peritoneal cavity. The needle had been in about twelve months. The patient was very much emaciated, and the symptoms were intense bleeding from the bladder. When the woman first presented herself he advised operation, but she declined; however, she returned and the operation was performed, and a needle eight inches long was extracted. There was a good deal of thickening round the site, and, as in Dr. Worrall's case, the needle was wrapped round by the omentum.

Dr. **FOREMAN** said he had not had much experience in the removal of foreign bodies from the peritoneal cavity, but he understood Dr. Thring had removed several at the Prince Alfred Hospital.

Mr. **HANKINS** gave a demonstration of a phonating apparatus he had arranged for a patient on whom he had done a total extirpation of larynx. (See report of this case in *Australasian Medical Gazette* for September).

The Council met at the Editor's Room on Friday, 25th October, at 8.30 o'clock. Present: Drs. Foreman, Rennie, Hankins, Brady, Hinder, Fiaschi, Worrall, Jamieson, and Abbott.

The minutes of the previous meeting were read and confirmed.

New members elected: Drs. Charles Ayres, S. W. Morton, and R. A. Fox.

Correspondence from Dr. Bennetts, of Temora, was read, and the Hon. Sec. instructed to reply.

Election of Editor: Dr. Rennie was unanimously elected Editor of *The Australasian Medical Gazette.*

Balance of Accounts: General account, credit £270 14s. 10d; *Gazette* account, credit £83 5s. 10d.

Accounts Passed for Payment: *Gazette* account, £66 9s. 9d.; refreshments, £3; W. Pepperday, £2 9s. 6d.

Letter was read from Dr. Bohrsmann with reference to the People's Prudential Benefit Association, and asking for a conference. Resolved that a conference be granted.

The Council met at the Editor's Room on Friday evening, 8th November, at 8.30 o'clock. Present: Drs. Rennie, Jamieson, Crago, Knaggs, Hinder, Hankins, Fiaschi, Todd, Worrall, Brady and Abbott.

The minutes of the previous meeting were read and confirmed.

Letter was read from Dr. Bennetts, of Temora, also letter of Hon. Secretary in reply.

Letter from Dr. Kelly, of Summer Hill, drawing attention to the fact that certain Lodges were advertising the names of their medical officers throughout the district.

Letter was read from Dr. Spencer and ten other members of Branch, with reference to international reciprocity with regard to medical practice. Dr. Todd was asked to ascertain in what respect the English law on the matter differed from the Australian, and report to the Council.

Report of the *Gazette* committee :—

That the Council should meet on the second Friday in each month.

That the old *Gazette* sub-committee should be discontinued.

That Dr. Crago be manager.

That Dr. Worrall countersign *Gazette* account cheques on behalf of the Council.

That the Editor and Manager be paid by fixed salary.

That contributors be paid.

That books for review be the property of the Branch.

That reviews be signed or initialled.

After discussion the report was adopted.

The conference with the representatives of the Peoples' Prudential Assurance Association then took place – Drs. Otto and G. H. Bohrsmann representing the Peoples' Prudential.

The HON. SECRETARY reviewed the circumstances which led up to the conference. Dr. Otto Bohrsmann gave particulars of the working of the Association. A general discussion then took place.

Dr. O. Bohrsmann thanked the Council for having received the representatives and withdrew.

Resolved—That the proposal of Dr. Bohrsmann cannot be entertained.

A suggestion by the Editor of *The Australasian Medical Gazette* to publish a special Congress supplement with the January issue was approved.

NOTICE OF MEETING.

A general meeting of this branch will be held at the Royal Society's House, Elizabeth-street North, Sydney, on Friday, November 29th, at 8.15 p.m.

Business : General.

G. T. HANKINS, Hon. Sec.

South Australia.

THE usual monthly meeting was held on the evening of 31st October, 1901, in the University. Present.—Drs. Todd (President), Cudmore, Anstey Giles, Lendon, Cavenagh-Mainwaring, Harrold, Watson, Sweetapple, Gregerson, Evans, Bonnin, Symons, Angas Johnson, Swift, A. A. Hamilton, C. W. Hamilton, J. A. G. Hamilton, T. K. Hamilton, Drummond, Marten, W. Hayward, Gault, Good, J. C. Verco, Brummitt, Scott, W. A. Verco, Rosebery, Fischer, F. Magarey, and Gunson (Hon. Sec.)

Minutes of previous meeting were read and confirmed.

The President reported the action taken by the Council in two matters referred to them. (Approved).

Correspondence.—Reply to letter of condolence read from Mrs. Way. Decided to send a letter of sympathy to family of late Dr. Bright, of Tasmania. Letter read from Dr. Gault, who, after explaining its objects, moved, "that it is desirable to form a Branch of the National Society for the Prevention of Consumption in South Australia." (Carried.)

The following entry was ordered to be placed on the minutes of the Branch :—"That this Branch records its high appreciation of the social and professional characteristics of the late Dr. E. W. Way, and the great services which he has rendered to the Branch as a private member, as a member of the Council, and as President, and expresses its sense of loss in his recent death."

Dr. J. C. VERCO showed a case of the very rare disease, myelopathic albumosuria, in a man aged 63 years, suffering from severe pains in the head, neck, shoulders, upper arms and trunk. A small outgrowth could be felt on the posterior surface of the sternal end of the right clavicle, and on the right side of the cervical vertebræ, just below the mastoid process. The lower end of the sternum was deformed, prominent and tender. The neck and mid-dorsal region were affected. There had been three fractures of the left humerus, and a Colles's fracture of the right radius during the past three years. The urine contained always a large amount of albumose, and a considerable quantity of this generally spontaneously separated as a sediment on standing for a few hours. The disease, which may be regarded as a form of "multiple myeloma," has been recognised only a few times, and this is the first case, as far as is known, which has been diagnosed in Australia. The presence of the so-called "albumose" was demonstrated both in the clear urine, and as a spontaneously deposited sediment.

LIVING EXHIBITS.

Dr. T. K. HAMILTON exhibited :

I. N.E., female, aged 18 years, the subject of nasal and tracheal ozœna, upon whom two operations have now been performed for sunken bridge of the nose. (*a*) Two years ago a gilt-silver plate had been introduced subcutaneously and as the effect was not quite satisfactory (*b*) Gersuny's injection of paraffin-vaseline was superadded about six weeks ago. The injection was made into the space between the plate and the skin, with a cosmetic result which now leaves nothing to be desired.

II. *Two Cases of Paraffin-vaseline Injection into the tissues of the orbit as recommended by Rohmer* (*Nancy*)[*]

(*a*) A.B., male, aged 34 years, whose globe was enucleated a fortnight ago.

(*b*) C.G., male, aged 18 years, whose globe was eviscerated two months ago. In each case 1 c.c. of paraffin-vaseline was injected by Gersuny's method, half the quantity above and the other half below the line of suture. The advantages Rohmer claims for this procedure is that the injection gives a great improvement to the position and mobility of the protheses. The results of these two cases are excellent. Both individuals are now wearing a No. 2 Snellen's prothesis, which stands out and moves well.

PATHOLOGICAL SPECIMENS.

I. *A Papilloma* removed from the left posterior pillar of the fauces of a man, aged 30 years, with a pedicle 1·00 c.m. long.

II. *A Cyst removed from the raphe of the nasopharynx* of a man, aged 36 years. From its position this cyst has probably developed from closure of the pharyngeal bursa.

III. The apparatus for administering ethyl chloride ("Kélène," as the purified chloride is named) as a general anæsthetic.

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[*] La Clinique Ophthalmologique, February 25th, 1901.

IV. *Specimens of a case of Sarcoma of the Nose, Accessory Sinuses and Larynx.*—J.K., female. aged 22 years, seen for first time on August 26th. There was a history of perfect health up to six weeks ago, when she had influenza with nasal obstruction, which latter has persisted ever since. On examination both nostrils were found filled up with a soft swelling, which bled readily on being touched. Specific disease was eliminated by getting the patient rapidly under the influence of mercury, with negative results, and removal of a portion of the growth was followed by very rapid reproduction. The growth extended to the choanæ posteriorly, where the septum was very much thickened. On September 12th, a culture of the discharge was made by Dr. Borthwick, and a portion of it removed for examination. Dr. Borthwick isolated from the cultivation a long and a short bacillus, both of which gave the morphological, cultural and staining reactions of Löffler's bacillus, and especially characteristic was the staining by Neisser's method. The patient was then isolated and 2000 units of diphtheria antitoxin was administered, followed by another dose on the second day. Löffler's solution was also applied locally to the interior of the nostrils. A marked improvement in the general condition followed, and ten days later no diphtheria bacilli could be found in the nostrils. On September 19th, Dr. Cavenagh-Mainwaring reported that the growth was a round-celled sarcoma. About a week after this an irritating cough began, but no physical signs could be detected in the chest. A few days subsequently a sub-glottic growth was discovered springing from the left side, and projecting beyond the middle line. The cough continued, accompanied by dyspnœa, which latter symptom gradually increased, but there was no stridor. On October 7th, the breathing became so difficult that tracheotomy had to be performed. The sub-glottic growth had then increased in size and the cords were apparently fixed in the cadaveric position. From this date on up to October 17th, when the patient died, pain in the head was the prominent symptom, and there was marked swelling under each supra-orbital arch, but the vision and fundi of both eyes were normal. During the last forty-eight hours before death the tracheal wound had become gangrenous, and from this region and the nostrils very offensive discharge was poured out.

The *post-mortem* was made twenty-four hours after death. On opening the skull, signs of commencing meningitis were present in the anterior fossæ. The cribiform plate was bare and softened. The interior of both nostrils and all the sinuses, except the frontal, were filled with a soft and partially decomposed substance similar to that found in the nose during life. The same kind of substance was found in the larynx, but decomposition had advanced so far that the original sub-glottic growth had lost all shape, and none could be obtained for examination. The points of interest in the case are :

(1) Sarcoma coming on in a healthy young woman after an attack of influenza.

(2) Nasal Diphtheria grafted on top of a malignant growth, and temporary improvement following the use of the antitoxin,

(3) An intrinsic laryngeal growth coming on in the course of an intra-nasal sarcoma without any direct connection being discoverable for there was no evidence of extension further downwards than the choanæ during life.

(4) The non-invasion of the frontal sinuses although all the adjacent sinuses were involved.

(5) Death from septic pneumonia owing to rapid and marked *ante mortem* decomposition of the neoplastic tissue.

V. *Myeloid Sarcoma of the Superior Maxilla.*—E. A., male, aged 23 years. First seen on September 25th. Ten days previous to this date, the 2nd, left bicuspid had been extracted, and the socket from whence it had been removed had become filled up with soft granulation-like and highly vascular tissue. On passing a probe through this an opening into the antrum was discovered. On September 30th, this tissue had increased so considerably in size that it was thought best to remove it. This was done with the knife, and along with the mass removed a piece of diseased and softened bone came away. Severe secondary hæmorrhage followed on the second day which necessitated plugging to arrest it. On October 3rd, the second molar tooth (the first molar had been removed some years ago) became loose and was extracted, surrounded by a quantity of the same kind of soft tissue as had been removed from the bicuspid socket, and two days subsequently the wisdom tooth loosened and was extracted. For the next three weeks treatment was diligently carried out, the antrum washed out twice daily with normal alkaline solution, followed by peroxide of hydrogen and a mouth-wash of phenol-sodique used frequently. Still very offensive purulent discharge continued, and the soft tissue which had been reproduced in the empty sockets showed no signs of healthy cicatrization, so an examination of this tissue was made, and it was found to be myeloid sarcoma, and in that portion adherent to the teeth the round cells were most numerous. Transillumination of the maxillary sinus showed a relative dulness over the affected side. Three days ago Dr. Cavenagh-Mainwaring removed all the alveolus and the surrounding parts on both sides, which meant opening up the antrum by the removal of the greater part of its floor. This cavity was found free from any definite growth, but there was a general thickening of the lining membrane of its interior throughout. The antrum was plugged with iodoform gauze, and the patient is so far doing well.

Dr. J. A. G. HAMILTON showed :

A man on whom he had performed an inter-scapulo-thoracic amputation 28 days before. The wound was quite healed, and the man was in good health. (See page 474.)

PATHOLOGICAL SPECIMENS.

I. *Rapidly-growing Succulent Myoma of Cervix with Double Hydro-salpinx and Flattened Adherent Fibro-cystic Ovaries removed from a Virgin aged* 33.—The uterus was torn open in attempting its delivery, which was only effected by opening up the broad ligaments and applying clips to the ovarian and uterine vessels.

II. *Dumb-bell Shaped Myoma of Uterine Body and Sclero-cystic Ovaries removed from a Virgin aged* 49.—A tumour of the left round ligament containing epethelium-lined tubes and very painful was removed from outside. A similar tumour of the other (right) side had been removed nine years previously, in the belief that it was a herniated painful ovary. I am unable to explain the presence of glandular elements in such a situation.

III. *A Pear-shaped Myoma of Uterus removed from a Multipara aged* 39 *years.*—She had had two confinements during the existence of this tumour.

IV. *Right Tubal Abortion and Pelvic Hæmatocele with Prolapsed Cystic Ovary the size of an egg.*—Small hæmorrhage, severe pain and recent cessation of menses led to the diagnosis of tubal pregnancy. Naturally the prolapsed cystic ovary strengthened the diagnosis, as it felt exactly like a tubal mole. From a tertiigravida aged 41, who had suffered pain (from the ovary) for 18 months.

V. *Uterus Smothered with Adhesions, accompanied by Tubercular Salpingitis, Ovarian Abscesses, Peritoneal (Pawlicks) Cyst removed "en bloc" by side to side Abdominal Hysterectomy from a Married Woman aged* 32.—This is a much simpler and more expeditious way of removing densely adherent ovaries and tubes than separating them from above. After amputation of the uterus all the adhesions were under the eye, and can be got at from below with ease. A similar case a short time before gave infinite trouble by separating the adhesions from above, the uterus having eventually to be removed.

Professor **WATSON** showed the following specimens:

1. Immense multilocular cystoma (left ovary) successfully removed in the country. It was of rapid growth (five to six months, according to patient). It was adherent to the liver and omentum, and accompanied by much ascitic fluid. From a virgin, *æt.* 23. Dr. Juttner, Tanunda.

2. Twin abortion after four weeks of repeated hæmorrhages. Each fœtus is blighted and enveloped in its own sac, and attached to its own over-twisted cord. The limbs are fused with the body walls. From a tertiigravida, *æt.* 26. Dr. Drummond, Semaphore.

3. Epithelioma of cervix in a shrunken uterus. The left tube and cystic ovary had been removed eighteen months previously. The silk pedicle lies embedded and unaltered at the left cornu. Vaginal hysterectomy. Multipara, *æt.* 33.

4. Malignant adenoma of large pear-shaped uterus from a multipara, *æt.* 41. Vagino-abdominal hysterectomy. The above specimens were preserved for me by Dr. M. U. O'Sullivan.

5. Compound fracture of lower end of humerus, which ruptured the brachial artery. The upper end is drawn out into a fine point and occluded with clot. The lower end has retracted, but has not contracted as one would expect; it is quite empty and gapes. From a male, *æt.* 16, who fell from a height. Primary amputation was unavoidable. Dr. Poulton.

6. Skiagram of separated lower epiphysis of the femur, showing the slipping forward of the diaphysis, described by Jonathan Hutchinson, junior. The screen showed that movement was in the epiphysial line and not in the joint. We have a similar specimen from a boy, whose leg was amputated. Mr. A. G. Fryett, the Melbourne artist, photographed it for Mr. F. Bird.

7. Veterinary instruments borrowed from Veterinary Surgeon Desmond, and used at a scapulo-thoracic ablation. (*a*) Chicago Tooth trimmer, with which the clavicle was severed (Denyer Bros., agents). (*b*) Safety hook, with guard and a ring, to which a block and tackle may be attached.

Papers by Drs. Stewart and Carr were then read. (See pp. 467-8.) Also, a short paper by Dr. Brummitt, (See p. 476), on "Poisoning by Biniodide of Mercury."

Dr. J. C. **VERCO** was glad that Drs. Stewart and Carr had sent the papers on the subject, and hoped the Branch would frequently receive contributions from its members in the country. He referred to a case which came from Port Pirie and died a few days afterward. When first seen by Dr. W. A. Verco, the patient—a young man—was delirious and paralysed and feverish, and though he improved for a few hours, his coma increased, and he died. A *post-mortem* was granted, and basilar meningitis, with puriform lymph in the subarachnoid space, was found. This was examined at the Elder Laboratory, and yielded a large form of diplococcus. This makes it fairly certain that the Port Pirie epidemic was the diplococcal meningitis. He referred to a boy who had died in his ward in the Adelaide Hospital from meningitis some months ago, where a diplococcus was found in the subarachnoid exudate. Two other cases of meningitis in girls had recently been admitted to his ward, presenting the same clinical symptoms. One had died, but no *post-mortem* could be obtained. The other was still alive, and seemed to be improving. These were probably of the same nature. The cases were not sufficiently numerous to justify the use of the word "epidemic."

Victoria.

THE ordinary monthly meeting of the Victorian Branch of the British Medical Association was held on Wednesday evening October 16th.

The President (Dr. Nield) took the chair.

After the business of the Branch had been attended to, Dr. Bryant read a paper on "Some Cases of Puerperal Eclampsia. (See p. 463.)

Dr. **CUSCADEN** had great pleasure in congratulating Dr. Bryant on the successful result of his treatment. This subject had given him a good deal of thought and anxiety during his connection with the Women's Hospital, and he had given many methods of treatment a trial, and had come to the conclusion that a certain number would die no matter what treatment was adopted. Some people said that statistics were of no use, still he ventured to give the following results:—Veit treated 68 cases with morphine and had two deaths. Charpentier treated 268 cases with chloral and 4 per cent. died. Some practitioners had the greatest faith in saline injections, but this was not his experience; for he had seen cases treated with hot packs, morphia hypodermically administered, intravenous and rectal saline injections, and yet the patient had died. *Post-mortem* examination revealed very little, as many cases had no interference with the kidneys. He considered bleeding in the early stage, and intravenous injection of normal saline solution, most beneficial in suitable cases, such as the second case described by Dr. Bryant, as it relieved the system of a certain amount of poisoned blood, and the dilution with saline solution seemed a most rational treatment in such a case. He did not believe in pilocarpin as it depressed the heart, and often produced alarming symptoms. There was no doubt the pathology of this disease was still very vague. He had much pleasure in informing Dr. Bryant that they were only too glad to get cases with premonitory symptoms at the Women's Hospital, and that they would always be taken in if sent in by an outside practitioner.

Dr. **MACANSH** considered such cases as they had heard related were most instructive to the general practitioner, and although he had not the opportunity of seeing many cases in his practice, he never knew the time when he might. He congratulated Dr. Bryant on his success in pulling through such cases of *post-partum* eclampsia, as he understood that they were more often fatal. The third case showed the advantage of appreciating the premonitory symptoms early, as such a case as this, without treatment beforehand, would almost certainly have died.

Dr. **WILLIS** considered that the kidneys had very little to do with the causation of puerperal eclampsia, and that it was due to a tox-albumen, produced most likely by defective hepatic action. He always made a practice of examining the urine regularly, during the course of pregnancy, and considered that all careful practitioners should adopt this plan. He would not care to exhibit pilocarpin in any form for this disease.

Dr. **NIELD** considered the paper most interesting. Of course, the pathology of the disease was a matter for conjecture only; and it would be a great help in treatment if the cause of the disease was accurately known. He could say, however, that great improvements had been made in treatment since the time when Dr. Tracy was in charge of the Women's Hospital. In those times chloroform was given to all cases; some died and some lived, but the treatment was purely empirical. He considered a great deal had been learnt about this disease during the last quarter of a century, and he had no doubt, if cases were closely and scientifically watched, that the pathology would be soon thoroughly understood.

Dr. **BRYANT**, in reply to Drs. Cuscaden's and Willis' objection to the use of pilocarpin, considered that in minute doses it was a great help to treatment. The original dose was far too large, and $\frac{1}{16}$ gr. was quite heavy enough in most cases. He considered the first point in the treatment of the disease was to get elimination of poisonous toxins, whatever they might be, from the system. Who could say that diaphoresis was not any help and therefore anything that produced free diaphoresis, provided that it did not cause too much cardiac depression, must be of use. Pilocarpin and hot packs were of great help to him in many cases, long before saline injections as an adjuvant were thought of. The second point in treatment was to try and dilute the poisons in the system, and so check the severity of the disease. This was done by the help of saline injections intravenous, cellular, or rectal. To relieve the nervous system was the third point, and this could be done by the help of morphia hypodermics, chloral and bromides by rectum, and chloroform by inhalation. The prima via should be attended to, and ol. crotonis was the most useful and quickest drug for this purpose. He did not agree with Dr. Willis that the kidneys had nothing to do with this condition, in all cases, for in those cases where albumen was present it showed that the kidneys must be blocked to a certain extent, and therefore prevented the elimination of toxins; just the same as in chronic rheumatic gout the passage of the toxins of this disease occasionally produced changes in the structure of the kidneys, and so prevented proper excretion, and led to other and much more dangerous conditions. He was quite aware of cases occurring without any albumen in the urine, and had several in his own practice, but this did not alter his opinion about the treatment of the disease.

Dr. **CUSCADEN** then read "Some Notes on Chronic Endometritis and its Treatment." (See p. 477.)

Dr. **MACANSH** thought that this disease was the cause of a great deal of trouble to practitioners. Curetting and treatment, such as Dr. Cuscaden recommended did a great deal of good in most cases, but occasionally one came across a case which is not only not benefitted, but a certain amount of harm follows. A general cellulitis is set up in these cases, most often, in his opinion, by tubercular trouble already present. When to curette, and when not to curette, he considered a very difficult point to decide.

Dr. **BRYANT** agreed with Dr. Cuscaden in his treatment, as far as it went, but he considered that this condition was so often due to prolapsus uteri, displacements, relaxed vaginal outlet and many other causes, that unless they were remedied as well, simple curetting would only palliate the disease. As for setting up cellulitis by curetting, this should not follow if a careful bi-manual examination be made beforehand. The use of the hot douche and icthyol glycerin plugs were very beneficial in the after treatment of such cases.

Dr. **CUSCADEN** replied that his notes referred to chronic endometritis not caused by displacements, etc., but due in many cases to gonorrhœa. or following neglected miscarriages or confinements. He thought that Dr. Macansh referred to those cases where there had already been some former localized cellulitis with adhesions, and the effect of dilation of cervix and dragging upon the uterus would probably be to break some of the adhesions, and so set up a fresh cellulitis. He considered this might be avoided by a careful bi-manual examination before operating.

Queensland.

A MEETING of the Queensland Branch was held on Friday, November 1st, 1901, the following members being present:—The Hon. W. F. Taylor, M.L.C., (President), Drs. J. Thomson, Peter Bancroft, Hopkins, Lockhart Gibson, Sutton, Wilton Love, Flynn, Hawkes, Macdonald, Lillian Cooper, Eleanor Greenham, Robertson, and Brockway (Hon. Sec.) Visitor: Dr. Zwar.

The minutes of the last meeting were read and confirmed.

Dr. **THOMSON** reported that the peculiar organisms seen in the specimen exhibited by him at the last meeting had been ascertained to be diatoms present in the water used in its preparation.

Dr. **HOPKINS** exhibited (1) a patient suffering from an unusual form of nervous disorder; (2) a very small calculus removed by him by nephrolithotomy, the interest of which lay in the severe symptoms arising from so small a stone.

Dr. **HAWKES** exhibited (1) two uterine fibroids removed by abdominal hysterectomy; (2) a series of microscopic preparations of the Fallopian tubes.

Dr. **MACDONALD** exhibited the granular kidneys of a youth of twenty.

Dr. **ZWAR**, for Dr. Marks, exhibited (1) an epitheliomatous growth and microscopic preparations therefrom, removed from the lip, the slowness of growth of which had been unusual; for Dr. Connolly, (2) an ovarian cyst removed that morning.

Dr. **LOVE** exhibited a microscopic preparation of the gonococcus in a Fallopian tube.

Dr. **FLYNN** exhibited (1) a tape-worm, with head, measuring 37 feet; (2) a round worm with eggs attached.

Dr. F. Macdonald was elected, and Dr. Taylor, of Georgetown, nominated for membership.

The **SECRETARY** reported that a deputation from the Branch, together with one from the Medical Board and also from the Medical Defence Society waited upon the Home Secretary with reference to the objections of the profession to certain clauses in a new Pharmacy Bill introduced into the Legislative Council.

Dr. **HOPKINS** spoke with reference to a paragraph which had appeared in the Brisbane *Courier* relating to the action of an officer of the Ambulance Brigade, who had transported a sailor from his ship to the Hospital while the captain of the ship was away in search of a doctor; and it was resolved that a letter be written to the Ambulance Secretary, calling his attention to the paragraph.

It was resolved that a letter of sympathy with Dr. Kerr Scott in his recent illness be written to him.

It was resolved that a Pathological Committee be formed, consisting of Drs. J. Thomson, Wilton Love, and Hawkes.

The SECRETARY announced that the meetings of the Branch would be held in future in the room granted for the purpose by the Home Secretary.

The annual meeting of the Queensland Branch of the British Medical Association will be held on Friday, December 6th.

West Australia.

THE Annual Meeting was held on Saturday, November 2nd, at Perth Hospital. There was a fair attendance of members. The minutes of the last meeting were read and confirmed.

Charles G. Thorp, M.B., Ch.M. Edin., and J. Sydney Hicks, M.D. Lond., were elected members of the Branch.

The following office-bearers were elected for the ensuing 12 months:—President, Dr. T. G. Davy; Vice-President, Dr. H. T. Kelsall; Secretary Dr. J. Thompson (unopposed); Treasurer, Dr. A. J. Saw (unopposed); Members of Council. Dr. A. Badock; Dr. E. Black; Dr. H. Horrocks; Local Editor and Special Correspondent to *Australasian Medical Gazette*, Dr. H. Horrocks.

The address of the retiring President (Dr. Tratman) was then read.

The meeting then terminated.

Ballarat District Branch.

THE Ordinary Quarterly Meeting was held on Thursday, October 31st, at 8.30 p.m. Present.—The President, Drs. Bennett, Champion, Cussen, Martin, Mitchell, Morrison, McGowan, Richards, Usher, and Wilson. Apologies were received from Drs. Courtney, Davies, C. F. Lethbridge, Pinnock, R. Scott, and Salmon.

The minutes of the last quarterly meeting were read and confirmed, as were also those of a special general meeting held for the purpose of amending the by-laws.

Correspondence was received from the Crown Law Department. Ballarat City Council, the General Secretary Hobart Congress, the Medical Practitioners of Inverell, N.S.W., Professor Martin, and Dr. Martin.

The PRESIDENT reported that the deputation had waited on the City Council with reference to the pollution of the lake, and had been courteously received.

The HON. SECRETARY reported that he had interviewed the Hon. R. T. Vale, M.L.A., asking his assistance in the matter of opening a receiving ward at the local lunatic asylum.

Drs. CUSSEN and MCGOWAN moved that the question as to the advisability of forming an Australasian Medical Association be referred to the annual meeting in January next. (Carried.)

Drs. MITCHELL and MORRISON moved that a letter be sent to the medical practitioners at Inverell. N.S.W., assuring them of the sympathy of this Branch with them in their struggle for fair play with the Local Oddfellows' Lodge. (Carried.)

Dr. MARTIN'S letter explained his position with regard to Mr. T. R. Treloar, and withdrew any offensive imputation.

New member.—On a ballot being taken, Dr. R. G. St. J. Naylor, F.R.C.S. Ed., of Smythesdale, was unanimously elected a member.

Dr. CUSSEN read a paper upon "Some Cases of Perforating Gastric Ulcer" (to appear in a future issue.) Dr. Champion added that the sister of Case No. 3 had been under his care, suffering from acute anæmia shortly before this case.

Dr. MORRISON read a *resume* of interesting cases met with in general practice (to appear in a future issue.)

In commenting upon the hydatid of the humerus, Dr. Wilson described a similar case of hydatid of the femur, which had been under the care of Dr. Stirling.

Dr. PINNOCK was to have opened a discussion on honorary medical appointments to sporting clubs and similar institutions. In his absence, the Hon. Secretary read an abstract of his paper, as follows:—

DISCUSSION ON HONORARY MEDICAL APPOINTMENTS TO SOCIETIES AND ATHLETIC CLUBS: OPENED BY DR. R. PINNOCK, M.D., BALLARAT.

In opening a discussion on Honorary Medical Appointments to societies and athletic clubs, I desire to say that my attention has been drawn to the subject within the last fortnight by a communication from the Ballarat Agricultural and Pastoral Society, notifying me that I had, in conjunction with two other medical men, been appointed an Honorary Medical Officer of the Society. This was followed not long afterwards by a letter requesting me to arrange with the other medical men about days of attendance at the shows. I have not replied to either of these letters. I should like to ask the members of this Society whether they think it right that we should accept honorary appointments of this kind from any societies or clubs otherwise than charitable ones. If these appointments involve gratuitous medical aid to accidents, etc., during the time these societies or clubs are holding their meetings, then I contend that we place ourselves in an unprofessional position to the regular attendant of the injured person, or to the nearest medical man who might be called in with a full right to charge for his attendance. If these appointments do not involve gratuitous medical aid on such occasions, then they must be regarded purely in the light of professional advertisements, for the names of the honorary medical officers appear regularly in print in connection with all meetings, etc., of the societies and clubs referred to. In the latter alternative I feel sure that no professional man worthy of membership of any reputable medical society would care to discuss the position I have taken up. In the former, I would ask whether it is reasonable or proper that members of the British Medical Association should under any circumstances, give gratuitous first aid to agricultural and pastoral, racing, bicycle, football, cricket, swimming clubs, etc. These organisations are all supported by people who can afford to pay subscriptions, either for some personal benefit, or for pure sport. They also pay handsome fees to their judges, referees, umpires, etc., for their services. Moreover, in the case of accidents occurring to jockeys, I think there is very little doubt that the Employers Liability Act should ensure fees for professional attendance to the medical man called in, whoever he might be. I trust these remarks may help to draw the attention, not only of members of our branch, but of all other Australasian branches of the British Medical Association to a matter of considerable importance to all of us.

A desultory conversation followed in which no definite decision was arrived at, but there was a general feeling that too much work was already being done gratuitously by the medical profession for people who are well able to afford to pay fees.

Dr. USHER introduced the question of Insurance Companies who are endeavouring to induce medical men in this district to examine candidates for five shilling fees.

Dr. BENNETT exhibited the following specimens:—

1. Extra-uterine pregnancy, operated on by Dr. R. Scott, showing the fœtus in the tube.

2. Malignant stricture of the œsophagus with the lumen, finally blocked by an orange pip.
3. Multilocular hydatid which had occupied the greater part of the pelvic cavity.

The meeting then closed.

REPORTS OF SOCIETIES.

EASTERN SUBURBS MEDICAL ASSOCIATION OF SYDNEY, N.S.W.

THE eleventh annual general meeting of the Eastern Suburbs Medical Association was held at the Paddington Town Hall, on Tuesday, October 15th. The President, Dr. Collins, occupied the chair, and there were also present Drs. Mullins, Barkas, Ludlow, Edwards, McLean and Hughes.

The **HON. SECRETARY**, in the Annual Report, stated that five new members had been elected during the past year, and referred to the great loss the Association had sustained in the death of Dr. L. E. F. Neill.

The Hon. Treasurer's statement showed a credit balance of £14 18s.

It was decided to give a welcome in the form of a dinner, to Drs. Dick and Edwards.

The following office-bearers were elected for the year 1901-1902: President, Dr. H. Walton Smith; Vice-President, Dr. M. O'Gorman Hughes; Hon. Secretary, Dr. J. Adam Dick; Hon. Treasurer, Dr. W. J. Barkas; Councillors, Drs. P. J. Collins, F. H. Quaife, V. Ludlow; Auditors, Drs. M. Matheson, J. Morton.

THE SYDNEY AND SUBURBAN PROVIDENT MEDICAL ASSOCIATION.

THE Annual Meeting of the Medical Profession of Sydney and its Suburbs, to receive the report on the working of the Association, was held at 121 Bathurst Street, Sydney, on 29th October, 1901. The **PRESIDENT** (Dr. Worrall) was in the chair.

The **HON. SECRETARY** (Dr. A. A. O'Hara) in his report on the working of the Association during the year, stated that about 1,200 new members had been enrolled during the twelve months, making a total of 5,627 members enrolled since the foundation of the Association. There had been 20 additions, and about 12 removals from the Active Staff. The Committee regretted the loss of the late Drs. Neill and Dagnall Clark from the Active Staff, whose deaths occurred since the last annual meeting. Several members of the Association had been struck off the rolls on account of their incomes being over the income limit; and to prevent such persons gaining admission, the following declaration was drawn up, to be signed by persons brought under notice:—"I hereby solemnly declare that my income from all sources does not exceed £200 per annum, and I further solemnly agree, that should my income at any time become greater than the above stated sum, I shall forthwith notify this fact to the Hon. Secretary"—and it was resolved to incorporate this with the declaration on the entrance forms; this had now been done. Several cases of alleged canvassing were reported, but in all the cases explanations were received, which satisfied the Committee that there was no foundation for the charges. In order to make the conditions on which members are enrolled quite clear, the following special rule was adopted:—"No collector shall canvass any proponent either directly or indirectly through another person. All recommendations must come through *bona fide* householders to whom the proponent is personally known, members of the Association, or medical men. Any collector infringing this rule will be liable to summary dismissal." Copies of this rule had been supplied to all the collectors.

The **HON. TREASURER** (Dr. E. H. Binney) made his financial statement, by which it appeared that the amount received during the year was £3,968 6s. 10½d. Of this amount £864 2s. 0½d. was expended on collections, office expenses, etc.; £3000 15s. 10d., after deducting payment to the chemists at the rate of 8s. per member per annum, was divided amongst the Active Staff at the rate of 17s. per member per annum.

Dr. **SINCLAIR GILLIES** moved a hearty vote of thanks to the Hon. Secretary and Hon. Treasurer for their valuable services during the past year. This was carried by acclamation.

The election of office-bearers for the current year 1901-1902 was then proceeded with—President, Dr. R. Worrall; Hon. Secretary, Dr. A. A. O'Hara; Hon. Treasurer, Dr. E. H. Binney. The members of the late General Committee and Sub-Committee were re-elected.

SYDNEY METROPOLITAN ASSOCIATION.

A **SPECIAL** meeting of the Sydney Metropolitan Medical Association was held at 121 Bathurst Street, on the evening of 17th October, 1901, to consider the rate of tender to the Rebecca Female Lodge, I.O.O.F. There were present: Mr. Hankins (in the chair), Drs. Clubbe, Geo. Marshall, Rennie, Litchfield, Hall, Spencer, Kater, Gledden, Biffin, Wood, Hogg, Agnes Bennett, Howse, John Harris, Fairfax Ross, Taylor Young, S. H. Hughes, Crago, Palmer, Langton, Cooley, Clarence Read (Northern Suburbs Medical Association), Brady, E. H. Binney, Martin, Kelly (Western Suburbs Medical Association), and Sinclair Gillies.

The **HON. SECRETARY** read the notice convening the meeting, and pointed out the importance of the question before them. The Independent Order of Oddfellows was initiating a scheme for the formation of Female Lodges on a large scale, and it was necessary to decide on what terms these Lodges would be accepted by the profession. The example of the I.O.O.F. would be followed by all the other orders.

After discussion, the following resolutions were carried:—"That in tendering: 1. The rate for single women without encumbrances be fourteen shillings (14s.) per annum; for single women with encumbrances (*i.e.*, with brothers and sisters under the age of sixteen years, or widowed mother dependent on them) and for married women (including their children, legally adopted children, and step-children up to the age of sixteen years, and widowed mother if dependent on and residing with member), sixteen shillings (16s.) per annum. That the husband of such does not participate in medical benefits."

2. "That if the tender be for attendance and medicine eight shillings (8s.) be added to the above tender."

3. "That in tendering the wage limit must be insisted on: that is, it must be stated that only those whose income is under £200 per annum shall be eligible for medical benefits."

The Secretary was instructed to forward a copy of the resolutions to all members of the Association.

WANTED A RESIDENT MEDICAL MAN for Gulargambone. Particulars can be obtained from E. E. Buttsworth, Gulargambone, *via* Dubbo.

REVIEW OF CURRENT MEDICAL LITERATURE.

MEDICINE.

The Early Diagnosis of Cancer of the Stomach.

Professor Hemmeter, of Maryland, U.S.A., in an address on this subject (*Lancet*, September 28th, 1901) points out that the signs usually referred to as diagnostic of cancer of the stomach in the early stage are really only present when the condition has become a late one from a surgical point of view. No stress can be laid on the age of the patient, since the limit of age for carcinoma is gradually receding. The presence of such symptoms as hæmatemesis, constipation or diarrhœa, emaciation, cachexia, tumour in the epigastrium, is of no use for the early diagnosis. The deficit of hydrochloric acid or of the ferments pepsin or rennin, and the presence of lactic acid, while, taken together, are strongly suggestive of malignant disease, may nevertheless occur in benign disease of the stomach. The presence of tissue fragments showing the structure of a neoplasm, and the Oppler-Boas bacillus is of undoubted diagnostic significance, but still not sufficiently early. The author suggests, as a method of obtaining additional early proof of the presence of carcinoma, a process of curettage of the stomach by a soft stomach tube. If a careful microscopical examination of fragments thus removed reveals the existence of cells with nuclear figures or mitoses presenting asymmetrical hypo- or hyper-chromatic forms, this is strongly suggestive of a malignant process. The diagnosis of cancer of the stomach has been made on this evidence in a large number of cases, and this has been confirmed by operation or *post mortem* examination. Electrodiaphany or transillumination of the stomach according to the method first introduced by Einhorn may give a suggestion of the existence of a tumour if this be situated on the anterior wall of the stomach, but it is of no use in other cases. Similarly the X-rays have failed to be of any service in diagnosis. The author concludes with the opinion that exploratory laparotomy should be done in any case of gastric disease associated with (1) rapid emaciation; (2) absence of hydrochloric acid; (3) reduction of proteid digestion; (4) presence of lactic acid by Uffelman's test; (5) presence of Oppler-Boas bacillus, if all these signs are present in any case of short standing and recent beginning of the disease, and no improvement follows on three weeks' appropriate treatment.

Rupture of the Heart in Typhoid Fever.

Benvenuti (*Il Policlinico*, July, 1901) reports a case of this nature. A woman, 30 years of age, while suffering from typhoid fever was suddenly seized with precordial pain and dyspnœa and died collapsed in the course of a few seconds. There were no special clinical signs indicative of weakness of the heart. *Post mortem* a rupture of the anterior wall of the right ventricle near the apex 2 c.m. in length was discovered. The myocardium was flaccid and yellowish in colour. The author considers the rupture to be due to a disturbance of the circulation in the myocardium of infectious origin.

Congenital Typhoid Fever.

Brown (Cincinatti *Lancet-Clinic*, April, 1901) records a case of typhoid fever occurring in a young infant. The mother who was suffering from typhoid fever, the diagnosis being confirmed by Widal's reaction, was delivered at the seventh month of pregnancy. The infant's temperature at birth was 101° and gradually rose to 103°. Widal's reaction was obtained with the infant's blood. There were no spots, but the spleen was enlarged, and the stools were yellowish and loose. It died on the ninth day after birth, and the autopsy revealed a large soft spleen, and enlarged mesenteric glands. At the lower part of the ileum were found healed ulcers, presenting all the appearances usually seen in adults who have recently passed through an attack of the disease. Manzinin has published a case in which lesions of Peyer's patches, similar to those of typhoid fever, were found in a seventh month fœtus, which died within an hour of its birth. Osler mentions a case in which a child died of typhoid fever with perforation of the intestine on the fifth day after birth.

Occurrence of Typhoid Bacilli in the Blood.

Cole (*Bulletin*, of the Johns Hopkins Hospital, July, 1901), gives the results of a research on the frequency of the occurrence of the typhoid bacilli in the blood of patients suffering from the disease. The blood was examined in both severe and light cases and the bacilli found in eleven out of fifteen. In three cases in which the organism was found the attacks were very light, while in one severe case in which on two occasions no bacilli were found, the attack was severe and prolonged; in another severe case no bacilli were found, though the blood was examined on three occasions. This patient was pregnant; miscarriage occurred on the twelfth day of the disease, and the bacilli were found in the blood of the fœtus and in the patient's urine. Positive results were obtained, most commonly in the second week, but bacilli have been found on the sixth day, and the latest on the twenty-seventh day. This paper is of importance as showing that the typhoid bacilli occur in the blood much more frequently than has been supposed.

The Diazo-reaction in Typhoid Fever.

Sacquepee (*Archives Generales de Medicine*, August, 1901) records his results of a study of the diazo-reaction in twenty-four cases of typhoid fever. Throughout the whole course of the disease he finds that this reaction is nearly constant in this disease, and commonly appears some days before the temperature reaches its highest point. The distinctness of the reaction follows the temperature curve. The disappearance of the reaction is followed by a fall in temperature, but if the fall is sudden and early it is a bad prognostic sign; and if it persist for some time after the temperature has fallen it often points to some complication.

The X-Rays in Medical work.

Dr. Hugh Walsham, the officer in charge of the X-ray department at St. Bartholomew's hospital, London, in a series of papers in the *Clinical Journal* July, 1901, and in the *Edinburgh Medical Journal*, April, 1901, refers to the use of the rays in the diagnosis of diseases of the chest. For the technical details we must refer our readers to the original papers, but it is of interest to note that thoracic aneurisms, œsophageal tumours, and enlarged mediastinal glands can be recognised by a skilled skiagrapher. Further, tubercular deposits in the lungs, pleural effusions, etc., give rise to shadows which can be of material assistance in diagnosis. The articles are illustrated by numerous skiagraphs which are explained in the text, and which bear out the author's statements on the value of this method of diagnosis. E. W. Martin (*Lancet*, September 28th, 1901), gives a skiagraph of a case of pneumothorax which shows very clearly the collapsed lung, the depression of the diaphragm and the displacement of the heart; also the shadows given by the caseous tubercle in the other lung.

Syphilitic Affections of the Stomach.

Soltau Fenwick (*Lancet*, September 28th. 1901), draws attention to the fact that some cases presenting the clinical signs of chronic gastric ulcer or gastritis are cured by the administration of large doses of potassium iodide and other anti-syphilitic remedies instead of the usual orthodox treatment for these affections. It has been commonly taught that while the mouth and rectum suffer frequently from tertiary manifestations of syphilis, the intermediate portion of the alimentary canal usually escapes. Syphilis may affect the stomach in three ways (1) gummatous lesions; (2) endarteritis; (3) chronic inflammation of the mucous membrane. Gummatous lesions of the stomach are rare. Chiari only found 3 in 243 necropsies on syphilitic subjects; Cornil, Klebs, and Birch-Hirschfeld have each described the condition. Endarteritis of the gastric vessels is not necessarily specific in origin; it is comparatively rare as a single manifestation of the disease, and is most commonly associated with gummata in the liver, pancreas, spleen, and the peritoneal glands. The chronic inflammation of the mucous membrane is due to the specific changes in the blood-vessels, amyloid degeneration, and the specific cachexia. The author warns against assuming that every gastric ulcer occurring in a syphilitic subject is of syphilitic origin. Probably in only five per cent. of chronic ulcers is there any direct connecting link between the stomach disease and the syphilis. The author further advises that before one concludes that the symptoms of gastric irritation are due to syphilis, one should be quite sure that the symptoms are not due to injudicious medication. Syphilitic ulcer of the stomach occurs most frequently in men between the ages of 25 and 40, and according to the author, has three characteristic features, which serve to diagnose this form of gastric ulcer from the simple variety. First, the pain and vomiting are very severe; second, hæmatemesis is very infrequent; and third, the obstinacy to ordinary treatment and the tendency to relapse are marked. In any doubtful case, a few days' treatment with potassium iodide will clear up the diagnosis, since this remedy only aggravates a simple gastritis or gastric ulcer, while it will tend at once to improve the specific disorder. The treatment of this condition of the stomach must be conducted on the ordinary lines so far as rest, diet, etc., are concerned, and potassium iodide and mercury given internally in addition.

Syphilitic Fever.

The subject of syphilitic fever has been studied in Professor Osler's wards of the Johns Hopkins Hospital, Baltimore, by Futcher, and his observations are recorded in a paper in the *New York Medical Journal*, June, 1901. He remarks that it is not sufficiently recognised that syphilis may be responsible for many cases of obscure fever, which clear up only when proper anti-syphilitic treatment has been adopted. Syphilitic fever may occur at various periods during the course of the infection. (1.) It may occur three or four weeks before the onset of the secondary skin eruptions. The temperature in these cases is likely to be attributed to something else, until the specific eruption makes its appearance. (2.) It may precede or be coincident with the appearance of the secondary eruption. This is the "fever of invasion," and is a very common and important symptom of secondary syphilis. (3.) A third form may occur at any time during the course of the secondary or tertiary stages. The fever of invasion, as well as that associated with late manifestations of the disease may present any one of the following types:—1. A mild continuous pyrexia, where the temperature ranges in the neighbourhood of 101° F. Osler states that this type is not uncommon in the fever which ushers in the constitutional symptoms. 2. A remittent type of fever with morning drops towards normal and evening exacerbations. This is considered the usual character of the fever of invasion. 3. A definite intermittent fever. This is the most remarkable form of all, and is the type which is most likely to lead to error in diagnosis. The febrile diseases for which such a fever is only too often mistaken are malarial fever, typhoid fever, tuberculosis, and sepsis. Where general pains and joint pains accompany the fever, the diagnosis of rheumatism may be made. Syphilitic fever is mistaken for tuberculosis even more frequently than for malaria. The patients may present themselves complaining of fever, night sweats, loss of weight, general malaise, and perhaps pain in the chest. On examination of the chest a few râles may be heard. This makes the case very suspicious. Janeway has recorded six cases of this nature which came under his own notice; four of these had been sent away to health resorts for phthisical patients with no benefit. Careful examination and investigation into the history of each case led to the diagnosis of syphilis, and prompt disappearance of fever and restoration to health of the patient ensued after the commencement of specific treatment. Futcher illustrates his paper by the records of three most interesting cases in Professor Osler's wards. The first was one of remittent and intermittent fever commencing at least twenty-seven days before the appearance of the secondary eruption, in a married woman 34 years of age, and in whom a history of recent infection with syphilis was obtained. The second case was one of fever of a remittent and intermittent type, which for weeks was suspected of being typhoid fever and treated as such. The diagnosis was established by discovery of the periosteal thickening over the clavicles and by cessation of the fever on the adoption of treatment with potassium iodide. The third case was still more remarkable. It was that of a physician, 57 years of age, who developed, twenty-nine years after syphilitic infection, an intermittent fever with chills, which was considered at first to be malarial in nature; no malarial organisms were found, nor did he respond to treatment by quinine. The fever at once yielded to anti-syphilitic remedies. In conclusion, the author emphasises the importance of recognising syphilis as a possible cause of fever of obscure origin, and states that in all cases of fever of doubtful nature, careful examination of the long bones and viscera should be made for evidence of syphilis.

Tuberculous Pericarditis with Large Effusion.

Rendu (*Bulletins et Memoires de la Societe des Hopitaux de Paris*, No. 11, 1901) reports a case of tuberculous pericarditis in a man of 34 years of age. On admission to hospital he was very dyspnœic, pulse small, rapid and irregular, a typical *pulsus paradoxus*. The precordial region was bulged, and there were œdema of the anterior chest wall, precordial dulness, and tympanitic resonance over the left lung posteriorly. Rendu punctured the pericardium, withdrawing 500 c.c. of sero-fibrinous, slightly hæmorrhagic fluid. Four weeks later the effusion again caused the same symptoms, 1,250 c.c. were withdrawn, and one g. of camphorated naphthol was injected. Six weeks later he was well, considering his pulmonary condition. The size of the effusion, and the great quantity of mononuclear leucocytes in it, showed that the condition was probably tuberculous. Sphygmograms are given showing the changes in the pulse.

CORRESPONDENCE.

QUEENSLAND.

(From our Special Correspondent).

The question of "A proposed Australasian Medical Association" has given rise to considerable thought since it was first suggested, and it would appear that the discussion has been satisfactorily opened in the editorial in the *Australasian Medical Gazette*, of October 21st. It would be a pity to take any step which would weaken the bond of attachment now existing between Australian and British medical practitioners, and to sever our connection with the parent Association would certainly have some such effect in the near future, if not immediately. At the same time it is also a pity that the Australian Medical Societies, "Branches" and others, are not federated into one strong body, and it would be to the advantage of the profession if such meetings as now occur once in three years took place annually. For, though there might be fewer men at an annual meeting than are now present at each Intercolonial Medical Congress, more individual men would attend in three years than do now. The suggestion thrown out in the editorial is assuredly a good one, and one hopes that the discussion at Hobart in February may lead to the adoption of some scheme towards its furtherance.

The necessity to keep an ever watchful eye for the interests of the profession is being clearly shown at the present moment in Queensland. A new Pharmacy Bill has been introduced in the Upper House, the ostensible purpose of which is to place the Pharmaceutical Society under the regis of the State by the constitution of a Board, part of which is to be nominated by the Governor in Council, to which, in that this purpose is, presumably, merely economical, no objection can reasonably be made. Further, any chemist found guilty of conduct "infamous in a *professional* sense" is to be dealt with by the Board—the thin end of an ambitious wedge. The most important difference between the present Act and the new Bill is to be found in the clause relating to the course of studies prescribed (this word appears so often that it has been suggested the Bill be called the Chemists' Prescribing Bill!), the present Act definitely lays down that the subjects of examination shall not include Medicine, Surgery, and Midwifery—a saving clause which in the proposed Act is conspicuous by its absence. It is obviously the intention of the chemists to constitute themselves a junior (?) body of medical practitioners, and to legalise counter-prescribing and visiting, practices which are already carried on without the sanction of the law. As a consequence of the opposition of the medical profession to this Bill, the chemists are vowing perpetual and direful vengeance, retaliation being naturally directed against our new Medical Bill which is on the Government programme. *Vae Victis!*

While some of us regard the encroachments of the chemists as the most important question of medical politics at the present moment, others consider the invasion of the "City Ambulance Transport Brigade *Hospital*" as of more serious import. It will be enough for the present to say that the profession in Brisbane regrets its instrumentality in the initiation of the "Ambulance," that a serious warning is given to the medical men of other towns than Brisbane wherein "local centres" are being established, to guard their own interests, and to obtain a transport service similar to that of Sydney, and as dissimilar as possible from that of Brisbane.

Brisbane,
November 1st, 1901.

THE BATTLE OF THE CLUBS.

(*To the Editor of the Australasian Medical Gazette.*)

Dear Sir,—Referring to your article in last number of the *Australasian Medical Gazette* under the heading of "The Battle of the Clubs," I should be obliged if you would be good enough to explain what is the working of the Sydney and Suburban Provident Medical Association, and say how the idea might be adapted to an unopposed country practice. Might I suggest that at the coming meeting of the Medical Congress to be held at Hobart next February, the question of "the relation of Friendly Societies to the Medical Profession," might be discussed and a course of action agreed upon which might be adopted throughout Australia. There will be representatives of the medical profession from each of the States of the Commonwealth, all of which are now being acutely affected by the lodge difficulty. If a small representative committee were appointed at the commencement of the Congress they might hold two or three meetings, and then report their finding at a special meeting of the whole of the Congress. This finding, if accepted unanimously, would have a certain authority, and each local medical society might be trusted to bring it into operation in the manner most suited to the locality. In this way we might arrive at what is so much needed, viz., unanimity of action among the members of our profession.

I am, yours, &c.,
C. F. P.

November 5th, 1901.

[Our correspondent should communicate with the Hon. Secretary of the Sydney and Suburban Provident Medical Association, 121 Bathurst-street, Sydney.—Ed. *A.M.G.*]

MEDICAL WITNESSES' FEES.

(*To the Editor of the Australasian Medical Gazette.*)

DEAR SIR,—I should like to know if there is a remedy for the following legitimate grievance :—

I am summoned as a professional witness to give evidence in an assault case in the Petty Debts Court of this town. The fee tendered was 5s. I attended and asked the police magistrate to allow me a guinea. He was unable to do so—it seems legally. I commented forcibly on the discourtesy of the plaintiff's solicitor, and restricted myself as to facts, and absolutely refused any opinion on the case. There is no doubt that the plaintiff's solicitor weakens his client's case by his uncalled-for parsimony—but have we any remedy when in court? In future I shall protect myself long before the lawyers touch the matter.

Yours very truly,
F. HAMILTON-KENNY.

Gympie, Queensland, November 7th, 1901.

[We fear our correspondent has no redress in this case, and the line of action he proposes to take in the future is the best solution of his difficulty.—ED. *A.M.G.*]

A G. P.'S ADVICE TO HIS SON.

OH, yes, my lad, a doctor's life is thought an easy one,
And fathers think it just the thing to suit their eldest son,
To drive about the country with a smartish gig and gee,
To write a short prescription and to take a guinea fee;
But hearken unto me, my lad, the trade is overdone,
And if for this world's fortune or for fame you wish to run,
Try any life of labour, lad, but do not try to be
A general practitioner, or, as we say, G.P.
He has to wear the newest togs and keep the best of style,
He has to work from dawn to dawn, and always bear a smile,
He has to keep a horse and trap, a parlor-maid and groom,
Subscribe to every charity and sporting club and boom,
Pay over-market rates in cash for all he has to buy,
And give the longest credit while his overdraft mounts high.
His banker and solicitor are in the U.F.S.,
They pay him eighteen pence a month per family, or less.
They always call him out at night for every trivial ill,
Expect the very best advice and most expensive pill,
And, if he meet them socially, a difference he must mark
Twixt them and brother members, such as Jim, the grocer's clerk.
They'll treat you with respect if selling boots, or chaff, or tea,
They've no consideration for their overworked G.P.
The chemists keep his cases, and prescribe for blood or bone,
And take his best prescription and re-label it their own.
The midwives take his labours, and then leave him barest time
To save the case of poisoned blood from dying in her prime.
The quacks and patent medicines take all his patients' oof,
Who then returns a chronic case for him to treat for love.
And when he thinks he has a chance to make a decent fee—
A case of typhoid fever in a wealthy family—
It's popped off to the hospital, they do not doubt his skill,
They say they can't afford a nurse, much less the doctor's bill.
But, if he find a tumour and suggest to operate,
They're off to town, and find a fee at fifty times the rate.
Ah yes, my lad, the glory, laud and honour—and the fee—
Have gone from the practitioner who styles himself G.P.;
Therefore, my lad, if you decide a doctor you must be,
Take care that you're a specialist, and not a plain G.P.

—E.K.H.

INSANITY IN AUSTRALASIA.

REPORTS OF THE INSPECTORS-GENERAL.

New South Wales.

FROM Dr. Eric Sinclair's report we learn that on the 31st December, 1900, the number of insane persons under official cognizance was 4,396.

The number of patients discharged recovered was 334, equal to a rate of 38.88 per cent on the admissions and readmissions. The percentage is under the average, but this is probably due to the retention on leave of a number of patients, who in the ordinary course of events, would have been discharged recovered. If these were included in the recoveries the percentage would be raised to 43.07, which, though perhaps higher than can fairly be taken credit for, more nearly approximates the true proportion. In this return are included the figures from the Hospital for Imbeciles at Newcastle, from which, however, no recoveries can be expected. Excluding Newcastle, the recovery rate is increased by 1.65 per cent. The number of those discharged improved was 66, showing a proportion to the admissions and readmissions of 7.67 per cent. The number of patients discharged on probation, or granted leave of absence to the care of friends during the year, was 260, making those remaining from the previous year 376. Of these, 131 were discharged recovered, and 88 were returned to hospital, leaving still on leave at the close of the year 152, as compared with 116 left at the close of the previous year. There were accordingly 36 patients, the majority of whom might fairly have been expected to be discharged recovered under the ordinary conditions.

Cases of insanity occurring in Broken Hill and its neighbourhood are, by arrangement with the Government of South Australia, treated in South Australian hospitals—a system which works well, and is of great advantage to the patients and their friends. The number of these patients is rapidly increasing, both as to the admissions and as to accumulation, and steps are being taken to transfer to this State from time to time incurable cases who have no friends at Broken Hill.

The deaths numbered 276, 197 being those of men and 79 of women. Calculated on the average number resident this gives a percentage of 6.61, which is about the average for the past ten years. The proportion due to the various diseases is much as in previous years, diseases of the brain being responsible for the largest number. A certain proportion is as usual, due to pulmonary consumption, amounting to 10 per cent. of the whole.

There are two institutions licensed for the reception of patients suffering from mental disease, and one for the reception of a single patient. One of these institutions receives patients of both sexes, the other female patients only.

Queensland.

Dr. J. B. Hogg reports that there were in Queensland institutions for the insane, on December 31st, 1900, patients to the number of 1,728. There were 347 admissions during the year. Of these 52 had previously been inmates of asylums for insane. They numbered 167—112 males and 55 females—9 more than last year. One hundred and twenty-eight had recovered, 36 were relieved, and 3 were handed over to friends, not improved. Of the total number of patients admitted during the year 36.88 per cent. were discharged recovered, and 10.34 per cent. relieved—a total of 47.22. There were 123 deaths—87 males and 36 females. Calculated on the average daily number of patients resident, the death rate for the year was 7.29 per cent.—5·02 in the case of males and 5.97 in the case of females. The greatest number of deaths were due to—diseases of the nervous system, 31; tuberculosis, 28; lung affections, 17; and heart disease, 13. Of the 28 patients who died from tuberculosis 4 were noticed to be suffering from it when admitted, while 8 were in poor general health; but the remaining 16 patients first showed symptoms of the disease during their stay in the hospitals.

During the year 2,010 patients—1,298 males and 712 females—were treated in the hospitals. The average number of patients resident each day was 1,687—1,084 males and 603 females.

Every effort is made to induce patients to occupy themselves with some congenial work, the importance of this as a curative agent being recognised by all authorities. Farming, gardening, and wood-cutting are the principal industries, the female patients being employed with kitchen, laundry, and needlework. The usual forms of amusement have been provided, such as cricket and tennis, while the fortnightly dances were continued during the winter months.

South Australia.

Dr. W. C. Cleland reports that on December 31st, 1900, the number of insane persons remaining in the South Australian lunatic asylums was 978. The average number of patients resident during the year was 17 more than in 1899. When cases have become chronic and established very little change in numbers occurs. One or two drop out by death in each year's admissions, and scarcely any by discharge. If the patient is able to withstand the stress of the first year of the onset of the disease there is a probability that he will survive for a considerable time, although not sufficiently recovered for discharge. Nearly half of the inmates were possessed of a certain amount of mental energising, which although erratic and requiring direction, was still capable of being utilised. The natural field for the expenditure of this force is the general work of the asylum and the cultivation of the garden and farm. During 1900 there were 221 admissions. Of these 20.82 were re-admissions. The period of life in which insanity causes patients mostly to be sent to the asylum is included in the decades between 20 and 50 years. During the year 130 patients were discharged, six of whom were not improved. Ninety-four patients died during the year. This gives percentage on the average number resident of 9.5. This is considerably above the percentage for the past forty years, which is 8.8. During the year continued efforts have been made to complete the arrangements for giving the junior and future attendants a systematic course of instruction, fitting them to pass a qualifying examination. One important step gained was the recognition of the Parkside Asylum as a teaching asylum by the Medico-Psychological Association of Great Britain and Ireland.

PUBLIC HEALTH.

CENTRAL BOARDS OF HEALTH.

Adelaide.

A MEETING of the Central Board of Health was held at the offices, Victoria Square, on Wednesday, October 30th, when there were present: Dr. W. Ramsay Smith (chairman), Dr. A. W. Hill, Messrs. J. Gordon and W. Haines, and the secretary (Mr. G. H. Ayliffe.)

Letter from the Secretary, local board, district of Kapunda, with reference to the payment of expenses for cases of infectious diseases taken into hospital. To be informed that the payment by a local board to a hospital of expenses in connection with cases of infectious disease is entirely a matter of arrangement between the local board and the hospital authorities. In regard to a patient admitted to the hospital without such arrangement having been made, it does not appear that the local board would be liable for expenses. Local boards who arrange terms with hospitals to receive cases of infectious disease might stipulate that isolation sufficient to prevent the spread of the disease should be carried out.

The secretary of the local board of health, Port Adelaide, forwarded a letter from Dr. C. D. Lander, with reference to delay in reporting a case of pulmonary tuberculosis.

Dr. J. I. SANGSTER, officer of health for Burra, called attention to an infringement of the Health Act in regard to maternity homes. The local board of health for Burra to be requested to investigate and report fully on this matter, and to state if the premises referred to in Dr. Sangster's letter are licensed as a maternity home under the Health Act, 1898.

The infectious disease returns showed four cases of scarlatina at Quorn, one at North Adelaide, and one at Port Adelaide. Two cases of pulmonary tuberculosis at Port Adelaide, and one at each of the following places:—Prospect, North Unley, and Woodville. One case of typhoid fever at Port Adelaide, and one at Woodville North. One case of erysipelas at Southwark, and one at Parkside. One case of diphtheria at Kooringa.

The infectious disease mortuary returns showed one death from pulmonary tuberculosis at each of the following places:—Palmerston, Hindley-street (city), Croydon, and Alberton. One from typhoid fever at Tarcoola.

Tasmania.

A meeting of the Central Board of Health was held in the Board Room, at the Chief Secretary's Department last month. The Chief Secretary (Hon. G. T. Collins) presided, and there were also present—Mr. C. Harbottle, Drs. E. J. Crough, R. Bright, and the Secretary, Mr. A. Mault.

VACCINATION.

The SECRETARY produced a copy of a circular that he had sent out to local vaccinators throughout the State. Attention was drawn in the circular to the irregular manner in which parents had their children vaccinated, the number in some districts largely exceeding that of others, although the population was almost the same.

NOTIFIED DISEASES.

It was stated by the Secretary that the condition of things with regard to notifiable diseases was very favourable, in comparison with previous years. In regard to typhoid, there had been a sudden increase that was unusual in the month of September; in fact, this year the number was considerably more than for ten years past, the total number of cases being nineteen. This number included the cases from South Franklin.

HEALTH OFFICER.

The appointment of Dr. Graham as health officer for Beaconsfield and Dalrymple was confirmed.

ANTHRAX.

A letter was read from the health officer at Launceston, announcing that a man from the Lebrina district is being attended at Launceston for anthrax. A communication from Dr. Willmot relative to the matter was also read. Further correspondence stated that the man suffering from anthrax had not had anything to do with the cattle suffering from the same disease on Keough's farm at Lebrina.

SCARLET FEVER.

The SECRETARY explained that he had received a resolution passed by the Hobart Marine Board, referring to the fact that the s.s. Gothic has been allowed to berth alongside the wharf, although there was scarlet fever on board. The health officer had reported that the ship's surgeon informed him that there were three children on board suffering from scarlet fever, and that they were in separate isolated cabins. Pratique had been granted under certain conditions, but the families in which the scarlet fever had broken out were not allowed to land, and barriers were erected to prevent the public from visiting that part of the vessel where the scarlet fever was.

AN EXPERT BACTERIOLOGIST.

Dr. Bright drew attention to the need of having an expert bacteriologist appointed, either under the Government or the Central Board.

The Chief Secretary admitted the need of making such an appointment, but said that the matter had not yet been considered.

Mr. Mault explained that Dr. Cherry's opinion was always available.

VITAL STATISTICS, TASMANIA.

During the month of September 119 births—67 males and 52 females—were registered in the registration districts of Hobart and Launceston, a decrease of 8·8 on the average for the month for the past five years. The deaths numbered 61—36 males and 25 females. Of this number 22 deaths took place in the public institutions of Hobart and Launceston. The estimated population of Hobart district was 34,577; Launceston district, 21,142. In Hobart district the proportion per 1,000 of the population, of births was 2·17; of deaths 1·07. In Launceston district: births, 2·14; deaths, 1·09. In these two districts there were only six deaths due to malignant disease and pulmonary phthisis; the largest number of deaths was attributed to old age.

THE EXPECTORATION NUISANCE.

The Municipal Council of Bathurst, New South Wales, has passed a by-law to the effect that no person shall expectorate on the footpaths or streets in the borough. Any person offending against this by-law shall, upon conviction, forfeit and be penalised in a sum not exceeding £5.

Following the example of the City Council, the North Sydney Municipal authorities have passed a by-law enforcing the penalty of a fine of £1 for expectorating on the footwalks in the borough.

The Board of Public Health in Melbourne find it impossible to prevent expectoration on the footpaths under the present Health Act. An amendment of the law is required to secure the desired reform.

HOSPITAL INTELLIGENCE.

Hobart Hospital.—During the month 119 cases had been admitted to the hospital; 104 were discharged, and 6 had died. The average daily number of patients in the hospital was 78, as compared with 79 last year. The out-patient attendances numbered 682. It was agreed to purchase an X-rays apparatus for the sum of £169.

Sydney Hospital.—At the meeting of the Board of Directors of the Sydney Hospital held on November 5th, a lengthy discussion took place on the proposal to abolish the present system of receiving "paying patients" into the hospital, and it was finally decided to refer the whole question for report to a sub-committee consisting of Hon. Sir Arthur Renwick, Hon. Dr. Mackellar, and Mr. David Fell.

Newcastle Hospital.—At the last monthly meeting of the Committee of the Newcastle Hospital, it was reported that possession of the new Nurses' Home had been taken on October 10th. The new operating theatre and instrument room had been completely furnished and equipped, the appliances and instruments having just arrived from London. Alterations were proposed to be made to the old building, which would provide accommodation for 13 additional patients.

PERSONAL ITEMS.

PROPOSED MEMORIAL TO THE LATE DR. WAY.

A LARGELY attended meeting was held at the Town Hall Buildings, Adelaide, under the presidency of the Hon. J. L. Stirling, on Monday, October 14th, to take steps to inaugurate a fund for a public memorial to the late Dr. Way. The chairman spoke in very eulogistic terms of the deceased's work and character, and moved the following resolution, which was seconded by Mr. Henry Scott and carried unanimously: "That it is desirable to collect a fund by public subscription for the establishment of a permanent memorial to keep alive the memory and work of the late Edward W. Way, M.B., M.R.C.S."

The Hon. G. Brookman moved, and Dr. Corbin seconded "That the memorial take the form of a chair of gynæcology, or of a scholarship at the University, or such other forms as the committee may determine."

Those present formed themselves into a general committee for the furtherance of the above object, and the following were appointed as an executive committee:—The Hon. J. L. Stirling (President Legislative Council), Drs. Barlow, Corbin, J. A. G. Hamilton, A. A. Hamilton, Hayward, Lendon, Poulton, Professor Watson, Hon. G. Brookman, Messrs. R. Barr Smith, Henry Scott, J. G. R. Murray, W. J. Sowden, J. H. Smeaton and C. G. Gurr.

On the occasion of his recent marriage, Dr. **Ralph Worrall** was presented by his colleagues on the Council of New South Wales Branch of the British Medical Association with a handsome drawing-room book-case in recognition of his long service and valuable assistance on the Council.

Dr. R. **Worrall** invited the members of the Council of the New South Wales Branch of the British Medical Association and a few personal friends to a dinner at the Australian Club, on the 30th ultimo, to welcome Dr. **James Adam Dick** on his return from South Africa.

Dr. E. **Maynard Pain**, late Medical Superintendent of Prince Alfred Hospital, Sydney, has returned to Sydney after a six months' trip to England He has been appointed to the staff of the Church Missionary Society's Hospital at Old Cairo, and will be leaving for his new sphere of work in February next.

Dr. **Frank Liddell**, on his return to West Maitland N.S.W., from a six month's trip to Scotland, was entertained at a smoke concert by the members of the local Bicycle Club.

Dr. **Ashburton Thompson**, President of the Board of Health of New South Wales, is away on six months' leave of absence on account of ill-health. During his absence, Dr. **Frank Tidswell**, the Principal Assistant Medical Officer to the Government and Microbiologist to the Board of Health, has been appointed Acting-Chief Medical Officer, and Medical Adviser to the Government.

At a recent meeting of the Board of Management of the Hobart Hospital a letter was read from Dr. R. S. **Bright** resigning his position as medical officer to the hospital after 40 years service, on account of failing health. The resignation was accepted with much regret, the members of the board testifying to the large amount of good work done by Dr. Bright. It was unanimously agreed to appoint him Honorary Consulting Medical Officer.

On the occasion of his retirement from the staff of the hospital Dr. **Bright** was entertained at dinner by the members of the Medical Section of the Royal Society of Tasmania. The Hon. Dr. G. H. Butler, M.L.C., president of the section, was in the chair, and proposed the health of the guest in terms of high appreciation of his long and valuable services in Hobart. Dr. Bright made a suitable reply.

Dr. **Kinder** has resigned the position of resident medical officer at the Adelaide Hospital in consequence of ill-health.

Owing to his contemplated removal from the district, Dr. J. H. **Wilson** has resigned the position of medical officer to the hospital at Warren, N.S.W.

Lieut J. A. Dick, M.D., F.R.C.S. Edin.—A hearty welcome was given at the Town Hall, Randwick, to Lieut. J. A. Dick on his return from South Africa. During his absence in South Africa he served first with the N.S.W. Field Hospital, and was on duty during the long marches through the Orange State and Transvaal to Pretoria. Later he served with the N.S.W. Composite Ambulance Units during the guerilla stage of the war. During this period he did much valuable work, and had many arduous experiences. He unfortunately contracted malarial fever near Rustenburg, and was invalided home. He proceeded to Scotland, and obtained the diploma of F.R.C.S. of Edinburgh. He was mentioned in Lord Roberts' despatches for special and meritorious services.

CHANGE OF ADDRESS.

Barnard, Dr. C. E., has removed from Hobart to Newtown, Geelong, Victoria.

Bett, Dr. F. A., has commenced practice at Pleasant Point, South Canterbury, New Zealand.

Cameron, Dr. D., has removed from Windsor, Victoria, to Deloraine, Tasmania.

Curgenven, Dr. W. B., formerly of Brownsville, N.S.W., has commenced practice at Stawell. Victoria.

Gaze, Dr. W. H., has removed from White Cliffs to Kalgoorlie, Western Australia.

Graham, Dr. A. W., has removed from Cohuna, Victoria, to Beaconsfield, Tasmania.

Lonergan, Dr. T. J., has, removed from Southern Cross to Northampton, Western Australia.

Redmond, Dr. W., has commenced practice at Hopetown, Queensland.

Scott, Dr. A. T., has removed from Dunedin to Whangaroa, New Zealand.

MEDICAL APPOINTMENTS.

The following Medical Appointments are announced :

Barber, A., L.R.C.S.I.. to be Government Medical Officer and Vaccinator at Penrith (N.S.W.)

Briffault, R., M.B., Ch.B., to be Public Vaccinator for Buller and Waimaugaira (N.Z.)

Butler, Dr. F. S., to be District Medical Officer and Public Vaccinator, Lawler (W.A.)

Creed, Hon. J. M.. M.R.C.S., M.L.C., to be Chairman of the Visiting Committee for Institutions licensed under the "Inebriates Act, 1900" (N.S.W.).

Deane, E. W., M.B., to be Officer of Health for the Borough of Carlsbrook (Vic.)

Doudney, E, M.R.C.S., to be Government Medical Officer and Vaccinator at Port Macquarie (N.S.W.)

Fetherston, R. H. J., M.D., to be Officer of Health for the city of Prahran (Vic.)

Fetherston, R. H. J., M.D., to be certifying medical practitioner under Factories and Shops Acts, Metropolitan District of Melbourne.

Graham, Dr. A. W., to be Medical Officer of Health for the district of Beaconsfield and Dalrymple, Tasmania.

Halke-Francis, F., M.D., B.S., to be Public Vaccinator for Ormondville and Norsewood (N.Z.)

Harvey, Dr. W.; to be District Medical Officer at Wagin, also to be Public Vaccinator for the Urban, Suburban and Rural districts of Wagin (W.A.)

Lewis, J. B., M.B., to be Public Vaccinator for the Metropolitan District, Melbourne (Vic.)

Lonergan, Dr. T. J., to be District Medical Officer and Public Vaccinator, Northampton (W.A.)

Manly. R. A. A., M.B., to be Medical Officer of Health for the Shire of Lancefield, Victoria.

Muir, W. C. C., M.B., to be Officer of Health for the Shire of Alberton (Vic.)

O'Brien, Dr. J. A., to be a member of the Medical Board of Victoria.

O'Flaherty, Dr. L. S., to be Public Vaccinator at Bulong (W.A.)

Rowan, Dr. T.. to be President of the Medical Board of Victoria.

Scott, A. T., M.B., to be Public Vaccinator for Whangaroa (N.Z.)

Springthorpe, Dr. J. W., to be visitor to the Metropolitan Lunatic Asylums, Melbourne (Vic.)

Stenhouse, A., M.A., M.B., B.Ch., to be Public Vaccinator for Blackstone (N.Z.)

Stewart, Dr. J. E. F., to be Officer of Health to Bayswater Local Board of Health (W.A.)

Teague, Dr. G. M., to be Public Vaccinator at Kanowna (W.A.)

UNIVERSITY OF SYDNEY.

On the recommendation of the Dean of the Faculty of Medicine the following examiners were appointed for the conduct of the forthcoming annual examinations in the Faculty of Medicine :—Anatomy, Dr. A. E. Mills; physiology, Professor E. C. Stirling; pathology, Dr. G. E. Rennie; materia medica, Dr. A. Watson Munro; medicine, the Hon. Dr. Mackellar; surgery, Mr. Hankins;

midwifery, Dr. M'Culloch; gynæcology, Dr. Fourness Barrington; clinical medicine, Dr. P. Sydney Jones; clinical surgery, Dr. T. Fiaschi; psychological medicine, Dr. Eric Sinclair; ophthalmic medicine and surgery, Dr. Odillo Maher; medical jurisprudence and public health, Dr. W. G. Armstrong.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

THE following persons have been duly registered as legally qualified medical practitioners in their respective states:—

NEW SOUTH WALES.

Hogg, Katie Welton, M.B., Bac. Surg. 1900, Univ. Edin.

NEW ZEALAND.

Edgar, John James, L.R.C.P. & S. Edin.; L.F.P.S.G. 1896.

VICTORIA,

Barnard, Charles Edward, M.R.C.S. Eng. 1873; L.R.C.P. Lond. 1873; M.B. *et* Ch. M. 1874, M.D. 1876, Aberd.

Curgenven, William Brendon, M.R.C.S. Eng. 1890; L.R.C.P. Lond. 1890.

Dunlop, Shuldham Henry, M.D. *et* Ch. M.R. Univ. Irel. 1886; L.R.C.S. Irel. 1886.

Additional Qualifications Registered:

Skinner, David, M.D. Aberd. 1901.

Johnson, Charles Harold, M.D. Edin. 1900, F.R.C.S.: M.R.C.P. *et* D.P.H. Edin. 1901.

Robertson, Edward, F.R.C.S. Edin. 1901.

TASMANIA.

Cameron, Donald, M.B., and C.M. Edin., 1890.

BOOKS RECEIVED.

PATHOLOGIE GENERALE ET EXPERIMENTALE—I. LES PROCESSUS GENERAUX. Par M. M. A. Chantemesse and W. W. Podwyssotsky. Paris: C. Naud, editeur, 3 Rue Racine. 1901.

LA LEPROSE. Par Dr. Don Sauton. Paris: C. Naud, 1901.

CLINIQUES MEDICALES ICONOGRAPHIQUES. Par M. M. Haushalter, Etienne, Spillmann et Thiry, Fascicule 1, avec Planches 1 à 7. Paris: C. Naud, 1901.

A MANUAL OF MEDICINE. By W. H. Allchin. Vol. III. Diseases of the Nervous System. London: MacMillan and Co.

GOLDEN RULES FOR DISEASES OF CHILDREN. By Geo. Carpenter, M.D. Lond. M.R.C.P. Bristol: John Wright and Co. London: Simpkin, Marshall, Hamilton, Kent and Co., Ltd.

THE POCKET GRAY, OR ANATOMIST'S VADE—MECUM. By the late Edward Cotterell, F.R.C.S., fifth edition revised and edited by C. H. Fagge, M.B., M.S. Lond., F.R.C.S., Senior Demonstrator of Anatomy, Guy's Hospital. London: Baillière, Tindall, and Cox.

GONORRHŒAL ARTHRITIS, its Pathology, Symptoms, and Treatment. By L. Vernon Jones, M.D. London: H. K. Lewis.

ELEMENTS OF PRACTICAL MEDICINE. By Alfred H. Carter, M.D., F.R.C.P. Lond., Eighth Edition. London: H. K. Lewis.

DISEASES OF THE STOMACH AND THEIR SURGICAL TREATMENT. By Prof. A. W. Mayo-Robson, F.R.C.S. and B.G.A. Moynihan, F.R.C.S. London: Baillière, Tindall, and Cox.

BIRTHS AND MARRIAGES.

BIRTHS.

ABBOTT.—On the 1st November, 1901, at "Kylemore," Stanmore Road, Petersham, Sydney, the wife of Dr. G. H. Abbott, of a son.

D'OMBRAIN.—On the 26th October, at "Gunyah," Casterton, Vic., the wife of Ernest A. D'Ombrain, M.B. et Ch.B., of a son.

HOWARD.—On the 28th October, at "Quendon," St. Kilda, Melbourne, Florence, wife of Henry Howard, B.A., M.B., Cantab., of a daughter.

MADDEN.—On the 19th September, at Cairo, Egypt, the wife of Frank Cale Madden, M.B., B.S., F.R.C.S. Eng., of a son.

SUTHERLAND.—On the 22nd October, at "Rokeby," Spring Street, the wife of R. Tate Sutherland, M.B., C.M., 84 Collins Street, Melbourne, of a daughter.

MARRIAGES.

SMITH—REYNOLDS.—On the 24th September, at St. Paul's Cathedral, Melbourne, by the Ven. Archdeacon Langley, Julian Augustus Romaine, M.D., B.S., B.Sc., eldest son of Captain Julian Smith, Adelaide, S.A., to Mary Edith, eldest daughter of Hilmorton J. Reynolds, Esq., "Coombe," Glenrowan, Victoria.

THOMPSON—LEVINY.—On the 1st October, at the residence of the bride's parents, by the Rev. A. R. Boyd McCay, D.D., James L. Thompson, M.B., Ch.M., third son of the late David Thompson, Castlemaine, to Ilma Edith, second daughter of Ernest Leviny, "Buda," Castlemaine, Victoria.

NOTICES.

THE "GAZETTE" IS EDITED FOR THE PROPRIETORS BY
GEORGE E. RENNIE, M.D., SYDNEY, N.S.W.;
AND FOR THE OTHER BRANCHES OF THE
BRITISH MEDICAL ASSOCIATION BY
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AUSTRALASIAN MEDICAL GAZETTE.

ORIGINAL ARTICLES.

THE POSITION OF THE MEDICAL PROFESSION, WITH SPECIAL RELATION TO THE STATE OF QUEENSLAND.

By Hon. W. F. Taylor, M.D., Brisbane.

Address read at the Annual Meeting of the Queensland Branch of the British Medical Association.

◆

(ABSTRACT.)

THIS branch has now arrived at the end of the second year of its existence, as the outcome of the amalgamation of the former Branch of the British Medical Association and the Qeensland Medical Society, and we may congratulate ourselves on the success which has followed the movement. The meetings of the Branch have been well attended, the average number present at each meeting being fifteen. The papers read have been of much practical and scientific interest, and the discussion, on subjects connected with the profession have resulted in considerable benefit to us. As an offshoot, so to speak, from this branch, the Medical Defence Society of Queensland has been formed, the sphere of usefulness of which will, no doubt, be far-reaching in the future. My work as President has been rendered easy by the cordial co-operation of the members of the Council, and the untiring energy and zeal of the Hon Secretary, Dr. Brockway. We have to deplore the loss by death of Drs. Smith and Hunt. Two members have withdrawn from the Branch, and 10 new members have joined during the year. The additions to our library have not been numerous, but it is to be hoped that the increased subscription will soon give sufficient funds to enable the Council to make substantial purchases of much-needed recent works. Through the courtesy of the Home Secretary, and the Commissioner for Public Health, we are now fully installed in our present very suitable quarters, and I think that we may at last congratulate ourselves on having arrived at a permanent abiding place.

The formation of a Pathological Committee is a step in the right direction, which has been too long delayed. It certainly does not redound much to our credit as medical practitioners of Brisbane, to have allowed the large amount of morbid material met with in our hospitals, and in private practice, to have gone to waste all these years. But better late than never, and now that a commencement has been made under such good auspices, we may look forward to having in the near future, a very respectable Pathological Museum.

The present condition of the medical profession in Australia, and more particularly in this State of Queensland, demands our most earnest attention, and this may be a fitting occasion to consider the position which it occupies at this time in the State, and before the public.

The different colonies of Australia, including Tasmania, having become united under one Federal Government; it may, and in all probability will, follow that in the near future some attempt will be made to introduce one uniform law to regulate the medical profession in the various States, and this law will probably be a sort of compromise between the Medical Acts at the time in force in each State. Let us glance briefly, therefore, at the present Medical Acts. As you are aware the Medical Act of this State of Queensland merely empowers a medical board, the members of which are appointed practically for life, for there is no limit to their term of office, to register any person who may apply to be registered as a medical practitioner practising in Queensland, provided that he shall prove to the satisfaction of the Board, or a quorum thereof, that he has passed through a regular course of study of not less than three years' duration in a school or schools of medicine, and that he has received after due examination from some university, college, or other body duly recognised for that purpose in the country to which such university, college, or other body may belong, a diploma, degree, or license entitling him to practise medicine in that country; or who is, or has been, a medical officer duly appointed and confirmed, of her Majesty's sea or land service. Once a person is registered there is no power to remove his name from the register whatever offence he may be guilty of, penal or otherwise. Any person not being registered who represents himself to be a medical practitioner, and at the same time practises shall, upon conviction before two or more justices of the peace of every such offence pay a sum not exceeding twenty pounds. According to this he may call himself a medical practitioner with impunity so long as he is not caught practising, or he may practise with impunity so long as he does not call himself a medical practitioner. Strenuous attempts have been made to pass a Medical Act through the Legislature empowering the Medical Board to erase from the register the name of any medical practitioner who has been convicted of any indictable offence, or who, in the opinion of the Board, has been guilty of infamous conduct in a professional respect, but from causes which I will refer to later, have been unsuccessful.

Until recently the neighbouring State of New South Wales was even worse off than Queensland in this respect—the Act only gave power to a Board to register those who cared to apply for registration, for the only privilege which registration conferred was the right to sue for fees, and that to a certain extent also belonged to the unqualified practitioner, who could sue for work done and, as a rule, recover. *The New South Wales Medical Practitioners' Act, 1898*, provides for the appointment of a Medical Board, and states what medical qualifications shall be registered. The amending Act of 12th October, 1900, imposes a penalty on any person who, not being a legally qualified medical practitioner within the meaning of the Medical Practitioners' Act of 1898, or is entitled to be registered as a legally qualified medical practitioner within the meaning of that Act, takes or uses any medical title, or any addition or description implying that he is a legally qualified medical practitioner; and gives power to the Medical Board to remove from the register the name of any person who has ceased to possess, or does not possess, the qualification in respect of which he was registered, or has been convicted of any felony or misdemeanour; the person so removed, however, has the right of appeal to the Supreme Court. And the amending Act of 6th December, 1900, gives the Board power to remove the name of any person guilty of infamous conduct in a professional respect, provided that the person so charged shall have the opportunity of defence, either in person or by counsel, and shall have the right of appeal to the Supreme Court, such appeal to be in the nature of a re-hearing. The Act also makes it compulsory for persons advertising or notifying that they treat disease, injury, or ailment, to state their christian and surnames in full in every such advertisement or notification, and to place and maintain the said names upon any house(if any) referred to in said advertisement or notification. No attempt is made by these Acts to stop medical practice by unregistered persons, provided that they do not make use of any medical title implying that are legally qualified medical practitioners; they are only required to state their names on any advertisement or notification and on the house, if any is mentioned in such advertisement or notification.

The Victoria Medical Act, 1890, gives power to a medical board to register persons possessed of certain medical qualifications, and imposes a penalty on any person, not being registered, who assumes any medical title which would imply that he is a legally qualified medical practitioner, but apparently does not prevent an unqualified person from practising, so long as he does not make use of a medical title. No power is given to the Board to erase the name of any registered medical practitioner convicted of a felony, or guilty of infamous conduct in a professional respect.

The Act of 1880 gives the Medical Board power to register persons holding certain qualifications. The Amending Act of 1889 renders it a punishable offence for anyone to falsely pretend to the possession of medical titles, whether he be otherwise qualified or not, and gives power to the Board to cancel or suspend the certificate of any registered person convicted of a felony or misdemeanour, or who has been deprived of his qualifications by the college or body which may have granted the same.

West Australia Medical Act of 1894.

According to this Act the Medical Board has the power to register the names of all applicants whose qualifications are comprised in the Schedule, and the Board has also the power to erase from the register the name of any person who has been convicted of a felony or misdemeanour, or of any offence, which, in the opinion of the Board, renders him unfit to practise, or who, in the opinion of the Board, is guilty of infamous conduct in a professional respect. No one, unless he be a registered medical practitioner, is allowed to assume any medical title whatever, or to advertise or hold himself out, directly or indirectly, in any manner whatsoever, as being entitled or qualified to practise medicine or surgery in any of its branches, and every assistant, servant, agent or manager is liable for any infringement of the Act. Advertising is prohibited, and the publisher is liable, provided that he has been notified by the Registrar. The Act is very comprehensive, and has evidently been framed to meet any case of unqualified practice, and advertising or publishing in any manner by unqualified persons. The lawful business or occupation of a chemist and druggist, or of a pharmaceutical chemist, or of a dentist registered under the "Dentists' Act, 1894" shall not be prejudiced or affected by any of the provisions of the Act.

The Tasmanian Medical Act, 1842.

Although this Act is old-fashioned it is a very stringent one in some respects. It effectually prevents any one from practising who is not licensed by the Court of Examiners, and debars anyone not licensed from prescribing to be taken or administering any medicine, or from performing any surgical act or operation for fee or reward. This should put a stop to all unqualified persons practising ordinary medicine or surgery, but does not, apparently, affect mental healers, clairvoyants, hypnotists and such like who do not administer medicines. The Act does not expressly give power to the Court of Examiners to cancel the certificate of a medical practitioner convicted of an indictable offence or guilty of infamous conduct in a professional respect, but I presume that this power is implied, judging from the extensive authority given in all other respects.

I regret that the opportunity has not been afforded me of ascertaining the practical working of each Act in the State to which it applies. The idea of writing on this subject only having occurred to me quite recently, I have not had time to make the necessary inquiries Some information on this point, however, may be gathered from the advertisements in the leading newspapers of each State, and I find that the style of quack advertising in New South Wales has undergone a marked change. I only found two regular advertisements of so-called specialists, in one of which the medical title has been dropped, and there are but few advertisements of patent medicines. In Victoria and South Australia a few only of the more common patent medicines are advertised. In West Australia two Sydney "specialists" advertise, and one local man, and there are some of the most notorious patent medicines advertised. In the face of the comprehensive and apparently stringent Act of West Australia, it is difficult to understand how these quack and patent medicine advertisements of a notorious kind are able to appear in the newspapers, for surely if any Act of Parliament could stop such the West Australian Act should do so. In Tasmania a few patent medicines only are advertised.

None of the Acts make provision for the registration of medical qualifications, the *name* of the person only being registered and published in the *Gazette*, with the exception of the South Australian Act which states in section 4 that the names and qualifications of all legally qualified medical practitioners are to be published in the *Government Gazette* by the Medical Board on registration, and in the month of January in each year. In Queensland it is the *person* who is entitled to registration. Section 8 states: The said Medical Board shall cause the names of all "legally qualified medical practitioners" as aforesaid to be "registered in a book to be kept by the said board for that purpose, and shall also cause all the names so registered to be published in the *Government Gazette* on or about the 1st day of January, and the same to be repeated annually for the information of coroners, magistrates, and the public." In addition to publishing the names of the legally qualified medical practitioners, the boards publish also their medical qualifications, and thus the register becomes a useful reference in that respect. It does not necessarily follow that each *one* of these medical qualifications must entitle a person to be qualified, for as a matter of fact very few degrees or diplomas entitle the holder to practise medicine, surgery, and midwifery as a general practitioner should be entitled to do. The degree of M.D. or M.B. alone would not entitle a person to practise surgery, and the degree of M S. or B.S. would not entitle a person to practise medicine or midwifery. So also the M.R.C S. or the L.R.C.P. alone would only entitle the holder to practise either surgery or medicine, therefore the boards have wisely and justly, I think, made it a practice to insert in the register and publish in the *Government Gazette* all qualifications, whether relating to the whole of medicine, surgery, or midwifery, or only parts thereof, such as the L.M. and the D.P.H. The Act in each case requires proof from the candidate for registration that he is in proper possession of a qualification which entitles him to practise, and so long as he fulfils that requirement there is no valid reason why a degree or diploma, or license granted for a special medical subject, which he possesses, should not also be registered and published, if any medical qualifications at all are registered and published. The medical register of each of these States should be a record of the qualifications of legally qualified medical practitioners, as well as of their names.

The Imperial Act of 1856 makes provision for registering the qualification, or qualifications, by virtue of which the person is registered, as well as his name and address; and every registered medical practitioner is entitled to have any additional qualifications which he may obtain registered in addition to the one, or ones, on which he was registered; and all qualifications entitled to be registered in accordance with this Act are also entitled to be registered in any part of the British possessions, provided there is no local law against it. By the Act of 1886 diplomas in sanitary science are entitled to registration by registered medical practitioners on payment of the prescribed fee. Therefore they are entitled to be registered in any of the British possessions, provided that there is no local law against it.

It will be seen from the foregoing that so far as the legal status of the medical profession in Australia, including Tasmania, is concerned, there is much to be desired, especially in some States, notably that of Queensland; and that its present position in this State in this respect is largely, if not entirely, due to the opposition of members of the profession engaged by the medical institutes, and by the pharmaceutical chemists. The former because they fear that power given to a medical board to erase the name of any person from their register who, in the opinion of the board, is guilty of infamous conduct in a professional respect, may militate against them for accepting positions which, in the opinion of the great majority of the members of the profession, are degrading to them as members of the profession, and consequently these institute doctors prompted the members of the medical institutes to exert their whole weight against any amendment of the present Act in the direction indicated; and the latter, the pharmaceutical chemists, because they feared that they would be curtailed in the exercise of the practice of prescribing and visiting, which many of them so largely indulge in at the present time. The quacks and abortion-mongers, and those who believe in them, contributed their quota of opposition to medical reform in this respect. But there was probably another cause of failure in passing a suitable Medical Act—the apathy shown by the members of the profession individually. It is not enough that we meet together and pass resolutions, and appoint deputations to interview the Home Secretary; individual influence must be brought to bear, and every exertion made by each one of us, if we are to prevail against the forces arrayed in opposition to us. At no time in the medical history of Australia has there been more cause for watchfulness on the part of the profession than there is at present. The clubs are actively engaged in endeavouring to increase the duties of their doctors, and to lessen their emoluments. But this is not all. One benefit association, under the guise of patriotism, seeks to enrol in its ranks people of all degrees of wealth and importance. This association aims at acquiring political power, and if it does acquire sufficient political power, the first use it will make of it will be to attack the medical profession, for already this Australian Natives' Association has approached the Premier of New South Wales and requested him to introduce the necessary legislation to compel medical practitioners to consult with their lodge doctors. This is only an earnest of what we may expect when this association gains sufficient political power, there will then be no bounds to their demands. A lodge of this association has just been formed at Bulimba, with the member for Bulimba as the first president. Branches are being formed in the other suburbs, and in a short time the place will be overrun with them. This matter of the clubs demands the attention of every member of the medical profession, whether he is engaged attending club patients or not. We should keep before us the fact that what affects individual members of the profession, affects the profession as a whole. No medical man, be he consultant, or specialist, or general practitioner with a lucrative practice, can afford to ignore attacks made upon members of the rank and file of the profession. This fact is pretty generally recognised, for as a rule we find that the most exalted are, in many instances, to the front in aiding in all things that tend to advance the interests of the members of the profession at large, regardless of any personal inconvenience or disadvantage. Would that all our professional brethren were actuated by the same spirit! there would then be no difficulty in repelling attacks upon the profession by so-called benefit societies, pseudo charities, and other kindred institutions. Unfortunately, however, personal interest, or a man's necessities sometimes predominate, and the result is victory to the aggressor. I am aware that it is, in many instances, difficult for a man with limited means to avoid taking lodge appointments, however degrading the position may be. He is probably induced to do so in the hope that the time will come when he may, by reason of the introduction which his connection with the benefit association has given him, be able to resign his appointment and go into private practice, when his sins will be at once forgiven him, and he will be received with open arms by the members of the profession at large, who, as long as he held the appointment as medical officer of the institute, refused to recognise him. He merely makes way in the institute by his resignation, for another to follow his example, and so the ball goes rolling on, the institutes can always depend on getting the services of those who are willing to be regarded as black sheep for two or three years, well knowing that as soon as they sever their connection with them they will be received back into the fold. No doubt there are some who take these appointments under a false impression, and if on discovering their mistake they free themselves from the position as soon as possible, they deserve the sympathy and assistance of the members of the profession, but with respect to those who take these institute appointments in order to further their own ends, the attitude of the profession towards them should be clearly defined. Either these institute medical officers deserve reprobation or they do not. If their offence is such that they should be debarred from being met in consultation by all those who are not institute medical officers, then there should be unanimity of action in this respect, and those who are not against them should be treated as those in favour of them, there should be no half measures in the matter; but if their offence is to be condoned immediately on their resigning their appointments, what justification is there for ostracising them and their medical friends during their term of office? I am aware that this matter has been discussed on two previous occasions; once by the late Queensland Medical Society, when a resolution was passed to the effect that the Society would view with disfavour the action of any member who met in consultation a medical officer of any medical institute; and also by the late branch of the British Medical Association, when no decision was arrived at, owing to the difference of opinion which existed among the members, as to whether these medical officers of institutes were really guilty of unprofessional conduct in accepting their appointments under the terms of their agreement, which were held by some to be derogatory to their dignity as members of the medical profession. The question, therefore, so far as the members of the late branch were concerned, resolved itself into one of individual opinion, and has remained so since. It is very desirable, however, that some unanimity of action should be agreed upon in this matter, and I would suggest, that inasmuch as the members of the profession in Brisbane are not in accord in this respect, that the question be referred to the medical practitioners whose names appear on the Queensland Medical Register, a majority of two-thirds to decide it. I make this suggestion now in the hopes that it will be acted upon in the near future, for the sooner this matter is definitely settled either one way or the other, the better it will be for the profession as a whole, and each individual member of it. I grant that it is a disagreeable subject to tackle, but that is all the more reason that it should be settled as soon as possible, and the members of the profession in this State understand definitely on what professional footing they stand with respect to the medical officers of these institutes.

Hospitalism is a subject which demands our careful attention, for it is rapidly becoming a menace to the profession. This statement may appear to be paradoxical to some, but I think that it must be conceded by all that there is a growing tendency on the part of the public to make use of hospitals, and there is also a growing tendency on the part of the public and members of the medical profession to meet this demand by the establishment of new hospitals and the enlargement of existing ones. The general public are not slow to recognise that board and lodging at a hospital—with medical attendance and medicines, and also nursing, for a small sum per week or, better still, no payment at all—is much cheaper than staying at home and having to pay for medical attendance, medicines, and nursing. The fact is constantly lost sight of that hospitals are established, or should only be established, to meet the requirements of the sick poor, and are not established and maintained as conveniences for the well-to-do artisan, shopkeeper, farmer, or selector. It is not always easy to distinguish between those, who from their poverty are entitled to hospital assistance and those who are able to procure private medical attendance, for many will not scruple to tell a doleful tale in order to secure their end—gratuitous medical advice and medicine at the out-patient department, and board and lodging and nursing included as in-patients. In the out-patient department sufficient time is not afforded to inquire carefully into the financial condition of every one seeking relief, consequently the personal statement of the applicant has to be taken for the time being, at all events. That the hospital authorities do their utmost to prevent imposition, I am free to admit, but these people often come with a letter from a doctor, or a prominent subscriber, or, in the case of accidents, they are run in by the ambulance, who evidently consider that their main reason for existence is to keep the wards of our hospitals full at all hazards, and in their zeal do not scruple to drag people from their homes, determined that the hospital shall be full. And medical men are not always as particular as they should be respecting those whom they recommend for admission to the hospital, especially cases requiring some operation. The hospital often gets cases that could well be operated on at their homes, but as the prospective fee is probably a small one, it is thought better to send the patient into the hospital, than to take the trouble of operating at the patient's home. Thus the hospital comes to be regarded as the only place where an operation can be successfully performed. Fifteen or twenty years ago, before the advent of the private hospital here, and when the public hospitals were not in such high favour as they are at present, operations at the residence of the patient were carried out with a fair measure of success, notwithstanding the drawbacks incidental to the homes of many of the poorer, and even the well-to-do classes, by reason of their insanitary surroundings, caused by defective drainage, and an inadequate removal of house refuse. At that time disinfectants were relied upon rather than absolute cleanliness, as at present, and the nurses did not understand the art of keeping wounds aseptic as they do in the present day. But all that is changed. We now know that a liberal application of soap and water, and some simple bactericide applied to the skin of the patient, and to the hands of the surgeon and his assistants, boiling the instruments and sterilising the dressings, will stand us in as good stead in the home of our patient as in an hospital. Of course to those who can afford it the private hospital is preferable to the home for many reasons which are well known, and therefore need not be enumerated here, but at the same time many who cannot afford the cost of residence in a private hospital might manage with the assistance of a nurse to remain at home and be operated upon, instead of being sent off to a public hospital, as is so frequently the case at present. Now it is, as a general thing, either a public or private hospital, and very little effort is made to induce the patient to remain at home, in many cases where it would be advantageous to do so. However, the doctor is not always responsible for sending the patient to an hospital. The public have got the impression that it is the proper thing to do, because, it is said, they can get so much better cared for there than at home, and so the doctor loses his patient and the opportunity of operating. Public hospitals, then, should be restricted to their legitimate use, that of affording relief to the sick poor; the so-called hospital charges should be abolished, and those able to pay such be refused admission, if they are residents of the town. With people coming from a distance it is different. They, in many cases, cannot afford to pay for board and lodging in addition to paying for medical attendance and medicine, therefore some provision must be made for them. But it does not follow that because provision requires to be made for such cases, that our public hospitals should be converted into cheap boarding-houses, with medical attendance, nursing, and medicine thrown in. These public institutions are thus brought into active competition with the local medical practitioner, to his serious disadvantage. We ought, therefore, to discountenance as much as we can this tendency to convert our public hospitals into cheap lodging-houses, and to endeavour to restrict the number of these institutions to the actual requirements of the community. It by no means follows that a new hospital is a necessity because shortly after it is opened the wards may be filled with patients. We have ample evidence of the fact that a considerable portion of the community are always ready to accept free board and lodging, accompanied with medical attendance, medicines and nursing, so that, as is well known, the difficulty is to keep people out of hospitals, and not to get them to enter as patients. We ought therefore to be perfectly satisfied that a new hospital is absolutely a necessity before lending our assistance to its establishment. The question of hospitalism requires to be considered from a moral as well as from a medical aspect, for there is no doubt but that the ample hospital accommodation provided by this state, has a tendency to render the class who chiefly make use of hospitals, improvident and careless for the future. When people know, that should they fall sick, or suffer an injury, they will be willingly received into the nearest hospital, and there cared for and nursed until they are restored to health, what inducement is there to strive to make provision for a rainy day as, the saying is? Sure of a refuge when required, they squander their money at the nearest public house. the owner of which generously donates a guinea a year to the local hospital, the general public, through the Government, giving two guineas for his one. It is time that this question of Government subsidy to hospitals should be seriously reconsidered in all its bearings. At the present it is a comparatively easy matter to start a new hospital in some out-of-the-way bush township. A meeting is called of the inhabitants, a resolution is passed affirming the necessity for the establishment of a hospital, a subscription list is opened, and the Government is appealed to for the usual subsidy of £2 to every £1 subscribed. The building is erected and furnished, and the Government is committed to a yearly donation, which, in many instances. is a considerable addition to the amount of money annually spent in the place. As a commercial transaction, therefore, it is a success, the townspeople getting a return of two hundred per cent. on the money which they have subscribed, in addition to the money subscribed by the neighbouring stations, and the Government subsidy also on this amount. The Government subsidy to the hospitals in this State for the financial year 1900-1901, amounted to £82,574 17s. 7d, distributed among seventy-six hospitals, being an average of £1,086 per hospital, and 3s. 3d. for every man, woman, and child of the population. But this sum of £82,574 17s. 7d. is only two-thirds of the cost of these hospitals, for the public raise by subscriptions the other third, so that the cost of maintaining these seventy-six hospitals was £123,861 8s. 9d.. or over 4s. 10d. per head of the population.

In the interest of the general public who, directly by subscriptions and indirectly by Government subsidy, support the hospitals, and in the interest of the medical practitioners, who suffer so much from the abuse of hospitals by those able to pay for private medical attendance, and to prevent the pauperising tendency which hospitals in many cases have upon a large section of the community, the establishment of a new hospital should not be entered upon until the necessity for it is clearly demonstrated.

The certificated midwife is a by no means insignificant poacher upon the medical domain. Armed with a certificate, obtained after a few months' residence at a lying-in hospital, she boldly launches forth as an experienced accoucheuse, and attends confinements without a doctor being present, and handing over the patient when confined to the care of a relative or neighbour, carries out her daily round of visits like a medical practitioner. It is absurd to suppose that a woman can, in the short space of time spent in attending the practice of a lying-in hospital, gain such an amount of experience and manipulative skill as will enable her to undertake cases of midwifery *alone*, without being a source of grave danger to the health and life of the woman committed to her charge, apart from the risk to the infant. If the female accoucheuse is a necessity, then she should be thoroughly trained up to a certain point, beyond which she should be obliged to obtain prompt medical assistance. This should be made a condition on receiving her certificate, with the distinct understanding that the certificate will be revoked should she trangress such condition. This is necessary in the interest of the patient and her infant, quite apart from that of the medical practitioner. To turn out these so-called certificated midwives in the manner, and in the short time that I am given to understand is the custom at some of the lying-in hospitals, is to create a danger to a section of the community that is unwarrantable. The training of these people should not be left to the free will of the staff of the hospital, but should be regulated by statute, under which a board of examiners should be appointed. I have known a woman after three months at an hospital blossom out into a full blown midwife, quite prepared to undertake any case of midwifery that might come in her way, and fully convinced in her own mind that she was perfectly competent to take charge of it. This is an ample verification of the trite saying, "a little knowledge is a dangerous thing." This evil has attained such proportions, that prompt legislative measures are required to remedy it, and the Goverment should be urged to introduce such without delay.

There has of late years arisen a body of men who have completely ousted the medical practitioners in and about Brisbane, from attending cases of accident or emergency. Originally started by two or three enthusiastic doctors as ambulance bearers solely, they soon claimed the right to administer first aid in cases of accident, in the absence of medical men, and having obtained their right, they rapidly assumed the functions of medical men in such cases, and now never think of obtaining medical assistance for any case that they are called to, but act altogether on their own responsibility, and even attend people who go to the Ambulance Depot, and in some cases have been known to attend people at their own homes. This so-called Ambulance Brigade have succeeded so well in obtaining the confidence of the public, that, in any case of accident now a days, no one ever thinks of sending for a medical man, but the Ambulance Brigade are invariably rung up, and they gallop along the streets in a dogcart painted yellow and drawn by a grey pony, the driver blowing lustily at a whistle to draw the attention of the people in the streets along which they pass. This sort of circus business is considered useful as an advertisement, and it also serves to impress the bystanders with a due sense of the dignity and importance of the Ambulance Brigade. It is impossible to say to what lengths these people would go were medical men to remain as apathetic in the future as they have been in the past, for evidently the brigade find their position an easy one, judging from the number of bearers one sees loitering about the brigade depot, and that it is a paying one may be assumed from the fact that they are seeking to enlarge their premises in Brisbane, and to extend their branches to the other towns of the State. As the brigade increases in numbers they will of course increase in political importance and power, so that it may eventually come to pass that a sort of legal recognition will be given to their medical pretensions, and we shall then have a body of men, destitute of any but the most superficial medical knowledge, scattered throughout the State, boldly attempting to perform many functions requiring advanced medical knowledge, and trained surgical skill. And the public will be just as ready then as they are now to avail themselves of the free attendance of these men under the impression that they will be as well treated by them as by the regular medical practitioner. When we find members of our Legislature standing up in their places in either House and boldly asserting that they have known better cures performed by chemists and unqualified medical practitioners and through the agency of quack medicines than have been performed by legally qualified medical practitioners, we can hardly wonder at the general public accepting the pretensions of the Ambulance Brigade to medical and surgical skill as genuine. The duties of the Ambulance Brigade should be clearly defined, and the committee of management should see that the brigade bearers do not exceed them. Correspondence has already taken place between this Branch and the committee of the Ambulance Brigade on this subject, but up to the present nothing of a definite nature has been settled respecting the duties of bearers, and the means by which they are to be confined to them. In no case should the bearers be allowed to remove an injured or sick person without the authority of a medical practitioner, where such is procurable; and instead of taking cases of accident long distances to the hospital, or to the ambulance depôt, they should be taken at once to the nearest medical man's residence, if not already seen by a medical practitioner prior to removal. If this practice were followed, injured persons would be properly attended to before being subjected to a long journey over a rough road to the hospital or to their homes. I am convinced that serious injury has been done in cases of accident by the bearers transporting the persons long distances over rough roads after having rendered what they considered first-aid. However, gentlemen, I will not pursue the subject further. If what I have said will induce you to attentively consider the matters I have mentioned, with the view to finding, if possible, a solution to them my object will have been accomplished. I have felt impelled to address you as I have done this evening, by the conviction that things are not as they should be with regard to the medical profession in this State at all events, if not in the other States of the Commonwealth; and although I would deprecate anything approaching to trades unionism in the profession, I would like to see more united action among its members on all matters affecting their common interests. This is the age of trusts and combines, and new political forces are evolving, the effects of which it is impossible to foretell. Amidst all this change it behoves us to be watchful over the rights and privileges committed to our care, for as sure as we neglect our duty in this respect, so sure will those rights and privileges be invaded. If we follow the advice given by Polonius to his son Laertes, and are, above all, true to ourselves, it must follow, as the night the day, we cannot then be false to any man.

FEEDING IN ENTERIC FEVER.

By Robert Brummitt M.R.C.S. Eng., Adelaide, S.A.

DURING half a century the food of enteric fever patients consisted almost exclusively of milk, varying in quantity from 16 ounces to six pints a day. We were taught as students that beef tea might also be given unless diarrhœa were present, and that barley water or lime water might be indulged in under certain circumstances. Recent medical text books, "Taylor's Practice of Medicine" (1898 edition) for instance, recommend such a dietary without qualification or variation, except that, if badly borne, milk may be peptonised. Dr. Taylor states that "during convalescence the patient must be kept for at least ten days on fluid food, except in very mild cases, when this rule may be somewhat relaxed."

On two occasions, I have passed through the typhoid ordeal under such treatment, and I have conducted some hundreds of patients through similar difficulties in the same way with fairly good results. I now have a conviction, however, that such a regimen is needlessly restricted, and that improved results may be anticipated as a result of more generous feeding while the disease is in progress and during convalescence.

When a case has been diagnosed as enterica, it has been—and is still—customary to feed the sufferer as though all cases bearing that name were similar in their needs, and in their digestive powers. There is a widespread disposition to treat the disease-name instead of the patient, and I fear that sometimes the patient has suffered needlessly on account of the label applied to him.

In January, 1897, I departed from the orthodox mode of feeding typhoid patients, and was well pleased with tho result. An article by Dr A. G. Barrs in the *B.M.J*, of Feb. 16th, 1897, gave further encouragement, and I have continued the use of an extended dietary scale in suitable cases. I now bring before the Association a summary of 98 consecutive cases of enteric fever treated by me at the Burra Hospital between Feb., 1897, and March, 1900. Cases treated outside the hospital have been excluded, because the records of some private cases are incomplete, and the inclusion of a selected portion would lessen any value these observations may have.

My first case was that of a girl, ten years of age, who had been in hospital about a month. Temperature had been very high, but had fallen to 98·8° in the morning and 100° in the evening; my notes tell that the child was "much emaciated, often whining for food." Abscesses had formed in various parts. one on the head was very painful, and was poulticed with linseed meal. On entering the ward one morning I found that my patient had eaten her poultice! Having already determined to use greater variety of food in suitable cases, I ordered bread and milk, followed in a day or two by minced meat, eggs, etc. The temperature was not evidently affected by change of diet, it became normal after a few days, and the patient made satisfactory progress.

Of these 98 hospital cases, five were fatal, seven were complicated, ten were very protracted, and in nine relapse occurred, while sixty-seven may be spoken of as normal cases. The fatalities could not in any instance be attributed to food used, two of the patients were unconscious when admitted, and did not regain consciousness, none of them received extra food. One case was complicated by hip joint disease, one by erysipelas (T. 107·2°), a third by double otitis media, one by a succession of boils, and three by multiple abscesses. All these cases were tedious, but their duration cannot have been dependent upon excessive food supply, and I set these groups aside, not bearing upon the subject under consideration.

The sixty-seven favourable cases included several very severe ones, but they were uncomplicated and terminated in apyrexia within 35 days without subsequent relapse. Of these a considerable proportion received "extras" as food while the temperature was elevated, and in nearly all cases stronger food was given freely from the time at which pyrexia ceased. I will cite some illustrative cases.

CASE III.—Boy, aged 13, admitted Feb. 9th, 1897. Until the 20th day of the disease only milk and beef tea were given, then patient being very hungry, and his tongue being clean, he had bread and milk and boiled fowl. Temperature on the preceding evening 101·4°, evening after meal 101°. Six days later the report states:—"Temperature subnormal in the morning, 100° to 101° in the evening, apparently unaffected by food; taking minced meat, egg, sheep's brain, fish or fowl daily in addition to milk, beef tea and milk puddings." After the 26th day temperature remained normal, and speedy recovery ensued.

CASE XXIII.—Boy, aged 14. Admitted May 8th, 1897. Milk and beef tea only given until the 16th day of the disease, when evening temperature was 102°. Patient hungry, tongue clean, bowels quiet, ordered maizena and junket. 19th day, bread and butter and sheep's brain; evening temperature 102°; 20th, minced meat; 21st, boiled fish. Day 23rd, "enjoys minced meat, fish or fowl daily with bread crumbs or mashed potato, temperature in evenings 101° to 102°. Day 25, temperature normal, it remained so, and good recovery followed.

An observant charge-nurse said, "All the typhoid patients are brighter mentally since stronger food has been allowed, they do not become so weak, and get well more quickly." I think that statement was true. In a few instances there was a rise of temperature after change of diet, it was never very considerable except in Case LXXI. to be mentioned later. On three occasions rise of temperature was accompanied by distaste for food, fluids only were then used, and the former level of heat was soon resumed. Two or three times extra food was continued in spite of increased pyrexia, and I had no reason to regret that course.

CASE IV.—Boy, aged 11. Admitted Feb. 9th, 1897. On the 20th day of disease, boy being very hungry, maizena and boiled fowl were given for dinner. The noon temperature had been 98·8°, at four o'clock it was 101·6°, it fell to normal after midnight, and at noon next day was 101·2°. Brain and breadcrumbs for dinner. evening temperature 100°. On the 25th day, the report says: "Temperature has risen to about 101° every night, sub-normal in the morning. Takes food well, brain, fowl, fish or minced meat for dinner, an egg for breakfast, broth and milky foods also. The boy smiles and enjoys life." 27th day, temperature normal morning and evening. No recurrence. Good recovery.

In the group of 67 favourable cases, the patients were not seriously injured by the food supplied to them; if generous diet proved hurtful in any instance, we must look for evidence of it among the nine patients in whom relapse occurred, or the ten whose illnesses were protracted beyond 35 days.

The frequency of *relapse* after enteric fever is said by Dr. Dreschfeld in Clifford Allbutt's "System of Medicine" to vary from 3 per cent. to 16 per cent. according to different authorities. My relapses were slightly over nine per cent. I will refer to two.

Case XIV.—Man, aged 50, admitted May 22nd, 1897. Patient had no desire for food during his first attack, and took only fluids until the temperature became normal. Then bread and milk were given, two days lator boiled fish; after the third day of the interval minced meat, brain, fish, or fowl was given daily until the 16th day, when the man became disinclined for food. Temperature in the evening was 101·8°, and a relapse extended through twelve days. On the seventh day bread and milk and porridge were prescribed; on the twelfth day of relapse, when temperature became normal, "extras" were recommended and given daily without any further elevation of temperature. In this case food was given freely through the 16 days of interval. I find it difficult to imagine that the relapse resulted from food, under such circumstances. I look upon improved nutrition as the best possible preparation for the relapse. Time will not permit detailed reference to other cases, but I must refer to one other, the only one in which a relapse speedily followed the use of solid food.

Case LXXI.—Man, aged about 45, admitted November 18th. A very severe attack, which lasted 34 days; no desire for food during the earlier part of the illness. Milk and broths at the outset, maizena and sago after the 27th day Temperature had been normal ten days before extras were ordered, presumably extra food was used on two days. On the second day relapse commenced; it ran a course of 23 days. Milk, clear broths, and soft farinaceous foods were given during the relapse, until the temperature fell below 100°, when, appetite having returned, bread and milk, minced meats, and other extras were used. I regret that the precise food used on the tenth day was not noted. The word "extras" was entered. It had a definite meaning including several articles, any of which might be used. Errors of diet may undoubtedly excite feverishness; but that a meal of minced meat or boiled fish, ten days after the temperature had become normal, should lead to a recurrence of a specific fever, or a re-invasion of bacilli, seems to me very improbable. I look upon the sequence of food and relapse in this case as a coincidence.

All the protracted cases were severe, some of them extremely so, during the earlier part of the illness. They were fed on fluids through the ordinary course of the disease, about half also had maizena or sago at times. The longest case (No. 92) went on 78 days On the 31st day I ordered bread and milk, on the 41st custard or egg daily, on the 47th brain and other extras, in addition to broths and milky foods. On the 52nd day I noted, "Looks much better and is stronger since having extra food, although temperature ranges from 100° to 102°; the addition of items to the menu has not appeared to affect temperature." On the 78th day temperature was normal throughout; excellent recovery. A brother of this patient (case 93), under precisely similar treatment, reached the end of pyrexia on the 44th day. In five cases (36, 39, 40, 46 and 48 days) no extras were given until the temperature became normal; in three others (37, 40, and 44 days) extras were allowed on the 27th, 20th and 34th days respectively. In several of these protracted cases I was anxious to give greater variety of food on account of the emaciation or weakness of the patient, notwithstanding high temperature, and the result was, as a rule, highly satisfactory, but food was never pressed upon unwilling patients.

If called upon now to treat a case of enteric fever, in which the patient has high temperature, headaches, much furred or dry tongue, and perhaps delirium at night, I should give frequent small drinks of milk (probably with water or soda water, or peptonised), and in so doing should satisfy the needs and the desires of the sufferer. If the case runs a severe course, milk in some form will probably be the staple article of food; perhaps mixed with lime water or barley water. Two or three pints of good milk a day will, as a rule, be sufficient; if well diluted there will be less likelihood of the formation of large indigestible curds in the stomach, and thirst will be allayed. Milk may be supplemented by clear broths, egg albumen with water, and a cup of tea or coffee, cocoa or chocolate, with milk occasionally. Milk is very distasteful to some patients, variety is often useful as well as grateful to those who tire of milk.

When the severity of the case has subsided to some extent, or in some instances almost at the outset, a desire for stronger food will often be expressed, and occasionally the demand will be very urgent, as in my poultice case, Authorities recommend the attendant to be inexorable; he must close his ears to the clamour of adults and the cries of children. I venture to differ from such authorities, and to accept the cry of nature in this matter as a fairly safe guide.

In any case in which the tongue is moist and clean, in which there is no diarrhœa, hæmorrhage, or tympanitis, and in which there is a distinct desire for food, I should assume that the digestive powers are in fair working order, and give them employment. When the digestive power of the stomach is good, as it often is, a mutton chop, an egg, a banana, or a cup of milk would reach the cæcum in very much the same form. I commence with light farinaceous foods and bread and milk and go on to minced meat, mashed potato with milk or gravy, custard, lightly boiled egg with breadcrumbs or thin bread and butter, boiled white fish or fowl, brain, rice in various forms, junket alone or with stewed fruit, from which skin and hard particles have been removed. Many patients appreciate a cup of coffee or cocoa at bedtime, and rest contentedly after it.

Some vegetable is desirable, especially in protracted cases. Onions or carrots may be used in the preparation of soups, but it may be well to remove solid portions; a small quantity of orange or lemon juice occasionally may also be useful. I have sometimes prescribed a baked apple and very frequently stewed fruit, with advantage to my patients; never, I believe, to their disadvantage. I never prescribe concentrated meat extracts, and very rarely proprietary foods of any kind. The nutritive value of freshly prepared foods, if properly made, is superior to that of the materials imported in condensed form, however largely they may be advertised.

Whatever food may be used, watchfulness as to the evacuations must be constant. If undigested food be passed, a change should be made in the character, form, or quantity of food. Undigested milk is most frequently reported, as might be expected, for milk is, and is likely to be, the staple food of enteric fever patients, and is frequently used in excessive quantity.

In favourable cases the desire for food usually arises before the temperature becomes normal; in such instances I nearly always comply with the request for food. In prolonged cases, in which the patient becomes very thin and weak, I look upon a craving for food as a harbinger of good. There may be serious ulcerative changes in progress or threatening; if so, the maintenance of nutrition is especially important. I think, with regret, of some such cases in years past, in which a stricter dietary was observed and in which results were unfortunate. In every case my "fed" patients recovered.

I do not advocate the indiscriminate use of strong food in enterica, adherence to milk diet would be immensely better than that; but the judicious use of a large dietary scale in many febrile cases and in nearly all convalescents, I believe to be good practice. In cases which can be generously fed, waste of flesh and strength is avoided and restoration to health is facilitated. A careful study of the 98 cases summarised has led me to the conclusion that the well-being of the patients generally was favoured by the use of extra foods, and that no material disadvantages resulted from their administration.

[Read at November Meeting of the South Australian Branch of the British Medical Association.]

ACROMEGALY.

By J. Flynn, M.B., Ch.M., R.U.I., Sydney.

There are few diseases in recent times that have excited so much interest, stimulated so much enquiry, or caused so much controversy, as acromegaly. Ever since Pierre Marie's original essay appeared ('85) when with rare clinical intuition he grouped the strange associated features of the condition into the symptom-complex, that proclaims it a distinct nosological-entity, observers in many lands have hastened, whenever opportunity offered, to relate in detail the more noteworthy points of this weird disease. The physiologist interested in the working of the ductless glands, and in the phenomenon of internal secretion; the pathologist ever eager to plumb the changes wrought in the skeletal framework by disease; the student of morphology and comparative anatomy, all have vied with the clinical observer in striving to untie the Gordon knot, to unravel the intricacies of this very intricate malady.

Already Australia has contributed more than her quota to the literature of the subject, her latest, but no means her least addition being a paper read at the Dunedin Congress from the pen of the gifted author of "Love and Longitude," who supplements an interesting record of four cases with a table of differential diagnoses admirable in design and excellent in execution.

As Dr. Skirving remarks, it is not devoid of interest in a new country to note if a disease rare at home occurs in the same relative proportion or assumes the same type in those lands. Partly in that spirit, and partly because acromegaly is of interest alike to the general practitioner and the specialist, I have thought it worth while to overcome some difficulties to bring the case before you.*

Anamnesis.—The family history presents nothing noteworthy ; her father died of hemiplegia ; her mother lived to a good old age. The patient always enjoyed good health till about six or seven years ago ; her husband dying when she was yet young. She supported herself and her children—as a laundress—for many years. She is about 52 years of age.

The onset of the disease was very insidious. She first noticed a tingling sensation in her fingers (acroparæsthesia), and, *pari passu*, that she was getting "very stout."

Present condition.—On looking at the patient at present, the first thing that attracts attention is the great size of her hands, feet and head, and perhaps the inclination of the upper half of her spine.

Upper Extremity.—Observing more closely, and commencing at the upper extremity, we note that while the arm and fore-arm are almost normal, the hand is markedly enlarged. All its tissues are affected, muscles, bones, connective tissue and skin. The width and thickness of the entire hand as well as of its component parts are increased. Its length, however, is not affected. From the wrist to the end of middle finger—it measures 7½ inches, almost the same as the normal hand. The form of the different segments of the hand is preserved. The fingers do not present the shape of the legs of a stool, as they do in pulmonary osteoarthopathy, nor is the last phalanx specially enlarged or deformed. The nails appear small relatively to the fingers, and on the right hand are transversely striated. The fingers do not taper, they are as large at their distal as at their proximal extremity ; they are not cylindrical, but flattened from before backwards. The circumference of index is 3½ inches. The change in the fingers was first noticed by patient when her rings and thimbles became too small. The carpometacarpal region is relatively more hypertrophied than the fingers, hence the "spade-like" appearance of the hand ; the circumference at the head of the metarcarpal bones being 9½ inches. The wrist, though larger than usual, is in proportion to the remainder of the upper limb. The lower end of the two bones of the forearm form no notable projection above the hand, nor are they deformed in any way, and they present very little antero-posterior or lateral thickness ; the circumference at the wrist being 8 inches. The hand as a whole then, though increased in size, preserves its form, presents no true deformity, and is the hand, we would expect in a very big person. The inter-phalangeal and palmar fold are considerably deeper than normal, but there is no deformity at the phalangeal joints.

Measurement of Right Upper Extremities.

Length of arm from acromion to olecranon ...	12½in.
Circumference of arm at its middle	11½in.
Length of forearm, olecranon to styloid process of ulna	11 in.
Circumference of forearm at its middle ...	11½in.
Of wrist at line of styloid of ulna	8½in.
Length of hand (from wrist to tip of middle finger)	7½in.
Middle finger (from palmar fold to tip) ..	3½in.
Dorsal (from metacarpo-phalangeal joint to tip)	5½in.
Little finger (palmar surface)	2½in.
Thumb (dorsal surface)	2¾in.
Length of nail of middle finger	¾in.
Breadth	⅞in.
Circumference of hand at middle of palm without thumb	10½in.
Hand with thumb	11¾in.
Breadth of hand at metacarpo phalangeal joint	10 in.

Amount of water displaced by immersing right hand as far as a line transversely round wrist at level of styloid process of ulna ; my right hand 325cc. *i.e.* 11½oz. ; patient's right hand 691cc, *i.e.* 24½oz.

Lower Extremity.—On examining the lower extremity we observe that while there is no notable enlargement of the thigh and leg, the feet like the hands are increased in size, they are thickened and flattened, but not lengthened. The thickening is specially marked on the plantar surface, where the tissues can be pinched up into thick folds ; which give the sensation of excessive development of the subcutaneous adipose tissue. The normal arch of the sole is obliterated. This is especially noticeable on progression, and not altogether to be explained by the thickness of the sole. There would seem to be yielding of calcaneo scaphoid as well as of short and long plantar ligaments. The size of the big toe especially attracts attention, its circumference is 5½ inches. The increase in the second segment of the foot (the tarso-metatarsal region) is even relatively greater than that of the toes ; the circumference at the heads of the metatarsal bones being 11½ inches. The malleolar region though greatly thickened in all dimensions is not deformed, the lower ends of the tibia and fibula present no projection, abrupt enlargement, nor deformity. The foot as a whole, though enlarged, preserves its form, and were it lengthened would present the appearance of that of a big person. Her shoes have become repeatedly too small for her.

Measurements of Right Lower Extremity.

Length of thigh from right iliac crest to head of fibula	16½in.
Circumference at middle of thigh	19 in.
Circumference at knee (middle of patella) ...	15½in.
Length of patella	3½in.
Breadth of patella	3 in.
Length of leg (from head of fibula to external malleolus)	15 in.
Circumference of calf	15 in.
Circumference of ankle (just above internal malleolus)	11 in.
Greatest length of foot	10⅜in.
Circumference over heel and instep	14½ n.
Of foot over back of toes	12 in.
Great toe	5 in.
Middle toe	3⅜in.
Length of nail of big toe	½in.
Breadth	1 in.
Length of great toe from proximal joint to tip	3 in.
Circumference of foot at middle	11½in.

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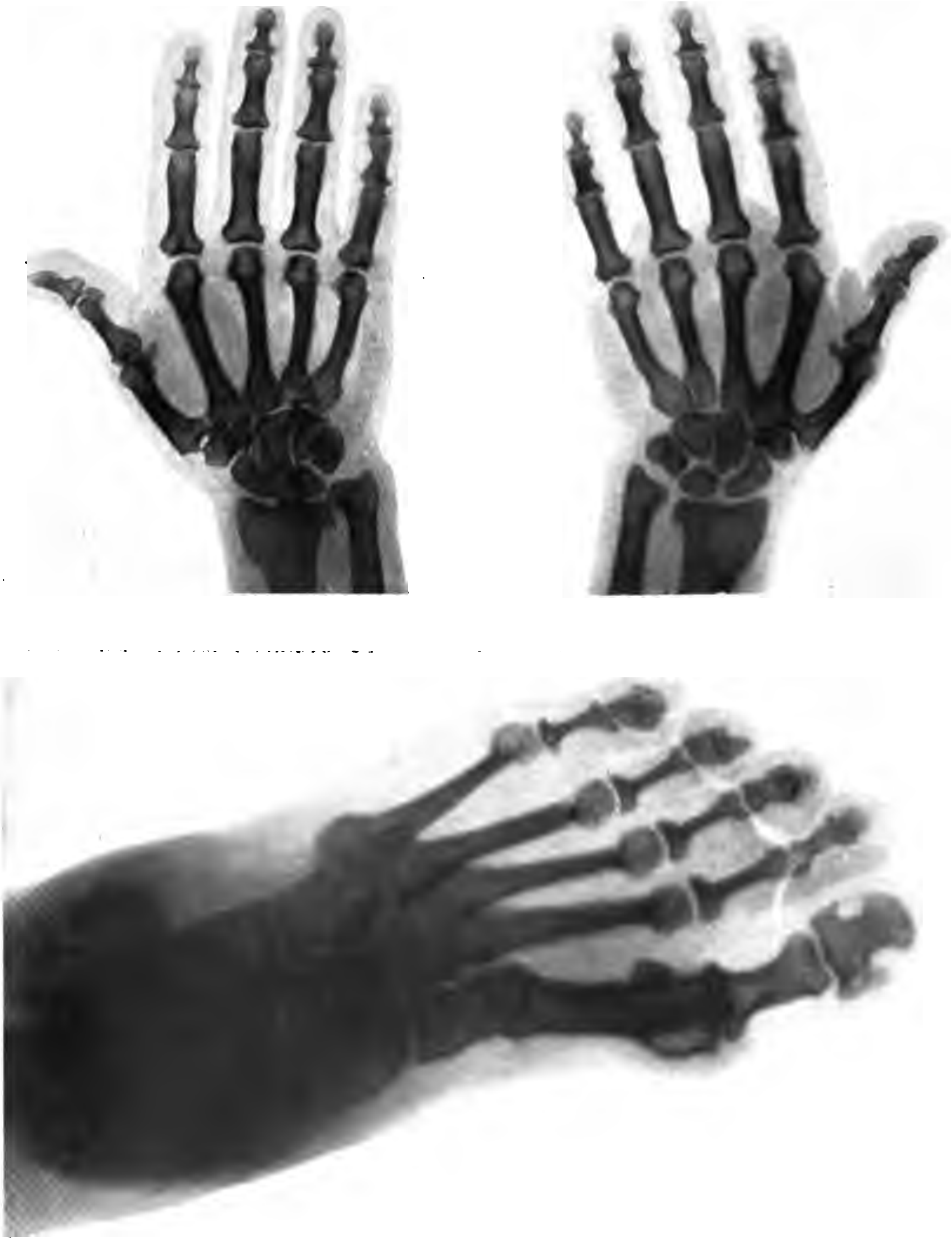
* When writing this paper I thought I would be able to exhibit the patient. Unfortunately on account of her psychical condition occasioned as I think by the disease itself all my efforts have failed. Apathetic, despondent, misanthropic, she would prefer death to the ordeal of an exhibition here. It is to be hoped, however, that the photos taken by Dr. Rennie, and the skiagraphs taken by Dr. Harris, will in a large measure make amends.



Hands and Foot of a Case of Acromegaly, showing exaggeration of normal ridges and tubercles and several osteophytic growths. Skiagrams by Dr. HERSCHEL HARRIS, to illustrate Dr. FLYNN'S Paper on Acromegaly, page 517.

Skull including Cranium and Face.—From an anthropological as well as from an anatomical point of view, the skull is divided into two parts, the cranium and the face. These regions are not equally affected in our patient, and their reciprocal relations in her brings into bolder relief some of the salient features of the disease. The cranium is somewhat elongated in its antero-posterior diameter, which is 8½ inches; the cephalic index is ·69; she finds great difficulty in getting hats large enough to fit her. Projections are felt like crests close to some of the sutures, notably along the lambdoid suture, and over the mastoid. It is, however, in the face that the most striking changes are noticed. Its vertical diameter is enlarged measuring from forehead to chin 8½ inches. The face as a whole has a peculiar elongated oval form. On feeling the border of the orbits, they are noticed to be considerably thickened. The anterior temporal region is depressed. The forehead is not low nor markedly retreating, and appears compressed laterally. The eyes seem small relatively to the orbits, so much so that patient would like sometimes if "she could pull them further out of their bed" to escape the remarks of too prying neighbours. The eyelids are long, apparently in excess of their needs, and the skin in the region is thrown into folds; the tarsal cartilages are notably enlarged.

The condition of the nose is one of the most striking features of the patient's face. It is increased in all dimensions, its bony and cartilaginous framework is hypertrophied, its septum is more than double its usual thickness, the lower portions of the alæ are especially thickened, its length from root to the columna is 2½ inches, its breadth from side to side is 4½ inches by tape measure.

On examining the mouth we observe it is kept constantly open; that the lips are swollen, especially the lower; that the tongue is always in view, on account of the relative position of upper and lower maxillæ being disturbed. The tongue, though increased in width and thickness, retains its normal shape, and is sluggish in its movements.

On looking at the inside of the mouth, the tonsils and faucial pillars strangely metamorphosed appear as huge projections from each side; the upper alveolar arch is atrophied apparently from the falling out of the teeth. The teeth themselves become separated more or less from one another, and get loose in their sockets, the gums recede from their necks and roots, the crusta petrosa exposed to fluids of the mouth is eroded. In this state they remain indefinitely, until, becoming a source of annoyance and pain, she seeks the aid of the dentist's art for their removal. Her molars have undergone a rotation on their vertical axis to the extent of 70°. The palatine vault and soft palate are enlarged from side to side, and from before backwards, the uvula is increased in size and elongated. The lower jaw projects forward fully half an inch in advance of the upper; the sub-dental or basilar portion of the bone is enlarged and thickened; the alveolar region is more atrophied than one would expect for her age, especially at the side. The projection of the inferior maxillæ accounts for the prognathous appearance the patient presents. But though the entire osseous framework stands out in front of the perpendicular of the forehead, yet the prognathism here differs from the facial prognathism of the negro, as may be seen by measuring the Camper's facial angle, it is almost exclusively maxillary, all the other regions are rather orthognathous. Hence the condition of the patient's lower jaw is best described by the term "progeneum" (Meyer), and her manner of masticating is best expressed by stating she is a "front chewer."

The face as a whole has an oval shape, its general contour is that of an ellipse with the major axis vertical, the bones more especially changed, being the nasal malar, and lower jaw. The right side of the face as a whole is more enlarged than the left.

Measurements of the Head and Face.

	By tape measure.	By calipers.
From glabella to external occipital protuberance	14 in.	8½in.
Between two molar prominences ...	...	6 in.
Between glabella and symphysis menti	...	5¾in.
Between zygoma and symphysis, right side	7¾in.	6¾in.
Between zygoma and symphysis, left side	7 in.	6¼in.
Between zygoma and angle of jaw, right	3 in.	...
Between zygoma and angle of jaw, left	2½in.	...
Between angle of jaw and symphysis, right	5½in.	...
Between angle of jaw and symphysis, left	5 in.	...
Circumference of head (taking occipital protuberance and superciliary ridges as fixed points)	24 in.	...
Breadth at frontal region	4 in.	...
Breadth at chin	4 in.	...

Thorax.—When looked at in profile, the back is rounded, and a curvature is noticed in lower cervical and upper dorsal region; the angle formed by the plane of the lower maxilla with the cervical region is very acute, hence the head constantly bends forward. Almost all the bones of the thorax are enlarged; the sternum is both thickened and widened; all its divisions are easily recognised as well marked crests are present at the junction of the manubrium with the gladiolus; the ensiform appendix is enlarged and ossified. All the ribs are hypertrophied, and some are rough to the touch, their costal cartilages are ossified. The false ribs are very painful on pressure, and patient cannot comfortably wear stays. The clavicles are very large and bossy, especially at the sternal articulation. The right side of the thorax as a whole is more affected than the left. The lower parts of the thorax play the principal part in the movements of respiration, the upper region remaining almost fixed. The thorax viewed as a whole is of a peculiar shape, partly from the spinal curvature, and partly from the increase of the sternum. It is laterally compressed, the longitudinal diameter is increased, the sternum falls away obliquely from above downwards as may be seen in photograph.

There is no notable dulness over the upper sternal region such as Erb has described and attributed to persistence of the thymus gland. The mammary glands are small and atrophied, but the nipples are appreciably enlarged. All the tissues of the neck are hypertrophied, and the thyroid gland cannot be felt.

The bones of the pelvis are thickened, the ischia, the horizontal rami of the pubes and the iliac crests are easily felt; the sacral region is flat for a female.

Skin.—The skin on almost the entire surface of the body has a yellowish brown colour; on the face it is more an olive tint. It is dry and flabby and appears too large for the body. On the neck and scapular region there are a few small tumours of molluscum fibrosum. On the gluteal region there is a large pedunculated one with a violaceous tint. The facial hairs as if released from the domination of the feminine element have developed into unsightly tufts on the jaws and upper lip.

The patient suffers from hyperidrosis generally, and bromidrosis of the feet. When in bed the sweating is most severe as she states, "it is as if a bucket of water were thrown on the pillow, and as if a a wet sack were applied to my whole body."

Urine.—Sp. gravity 1030 ; no albumin ; no sugar. It was not practical to ascertain the quantity passed in twenty-four hours. The calls to micturition were urgent and frequent, but the frequency was that of irritability, not of quantity.

Eyes.—Only a cursory examination of the eyes was made, as it was intended to instil a solution of homatropine with a view to a satisfactory ophthalmoscopic examination. This the patient would not allow : however it was found that she had bitemporal hemianopsia, the re-action to light and to accommodation were both present, but neither of them active, the left field of vision was more contracted than the right.

Subjective Symptoms.—It is not easy to give a coherent account of her subjective symptoms, as she withholds a willing co-operation. She suffers from more or less constant headache, especially when lying down. She complains of intermittent pains in her joints, sometimes the ankle, and sometimes the shoulder being affected. She cannot adjust her hair at any time on account of pain in the region of both shoulders, when the hand is lifted high enough for that purpose, though she can lift it high enough to wash her face without pain. Menstruation has ceased for many years, but before the final arrest she used to suffer from amenorrhœa, and not infrequently thought she had arrived at "change of life" long before she actually did. Her mental condition is despondent ; dejected in spirits and irritable in temper, she prefers to eke out her existence in solitude, and partly from the consciousness that her features are disfigured, partly from her psychical condition she views askance the visits of strangers, and is inclined to regard them as intrusions. This must be my excuse for the many shortcomings of this report.

The ætiology of this strange condition is a very important, and a very interesting question. Many of the theories that have from time to time been adduced to explain the pathogeny of the disease have now but a historic interest. Passing by the atavistic theory of [*]Freund, the thymus theory of Klebs[†] and the neurotic theory[‡] of Recklinghausen—all of which labour under many and great defects—we come to the hypophysis theory, which to say the least is highly suggestive. Marie was the first to offer the hypothesis that acromegaly was a general dystrophy connected in some way with disease of the pituitary gland, just as myxœdema depends on that of the thyroid as the cause of disease.

We start with the fact that in acromegaly there is invariably disease of the pituitary gland. Before, however, proceeding directly to consider the bearings of disturbance in the gland on the disease in question, it will be useful to turn aside, and see what light, if any, its ancestral history throws on its function.

In all higher forms, man included, the pituitary gland has a two-fold structure, and represents a double organ; and in order that any real light may be thrown on this two-fold structure, it is necessary to descend the animal scale till we arrive at that stage where all portions of the organ were functional. This stage is found in larval amphioxus and larval petromyzon, and in lower forms. (The development of the pituitary gland was then explained with the aid of diagrams.)

The investigations of Andriezen prove that the pituitary in larval amphioxus and ammocœtes is a three-fold structure, viz.: (*a*) a subneural glandular organ originating from the epithelium of the buccal roof at the opening (*b*) of a duct which connects the buccal and neural cavities, and is itself lined by ciliated epithelium, and (*c*) a group of nerve cells around the upper opening where the duct widens into the ventricular cavity. That the duct was the inlet of a water vascular stream, which brought oxygen to the central nervous stream, is proved by using a fine emulsion of carmine, and passing it by means of a fine nozzle towards the animals. On killing them, some time afterwards, a number of particles of carmine could be seen in the duct and lining all the ventricle. The function of the group of cells at the upper opening, which are developed from the base of the brain was evidently to test the quality of the water to see if it were noxious or otherwise to the central nervous system, while the lower groups of cells were a glandular secreting structure, whose secretion passed in with the ingoing stream.

With the development and growth of a blood vascular system, neither duct nor sensitive lobe were required, and hence in all forms above larval petromyzon, they have atrophied and become functionless. Traced up to man, the posterior lobe represents little more than the neuroglia remnant of what was once a functional portion of nerve tissue. That the anterior portion in those early forms is a true glandular secreting organ is proved by its minute structure and its micro-chemical staining reactions. The arrangement of its lobules and acini also shows that its secretion was poured into the duct, and carried with the ingoing stream into the central nervous system. Such a phenomenon to my mind is significant, and throws suggestive light on the function of the pituitary body in man, and indirectly on the disease we are discussing. With the development and growth of a blood vascular system, bringing as it does, oxygen to the nerve tissue, the need for a water-vascular current no longer exist, and therefore the pituitary duct and sensitive lobe are no longer required, and hence in all forms higher than larval petromyzon have atrophied and become functionless. It is quite otherwise with the anterior glandular lobe. Its secretions are just as necessary for the well-being of the economy after the cessation of the water-vascular stream, as they were when conveyed by that stream to central nervous system ; they are just as useful now that oxygen reaches the central nervous system by a blood-vascular current as they were when borne by the ingoing water. There is this difference though, that as the duct is now obliterated, the secretion becomes an "internal secretion," and the anterior lobe becomes a "ductless gland." This internal secretion is absorbed by the lymphatics, and now enters the nerve tissue by the blood vascular stream, exercising an important trophic influence on the central nervous system of Vertebrates.

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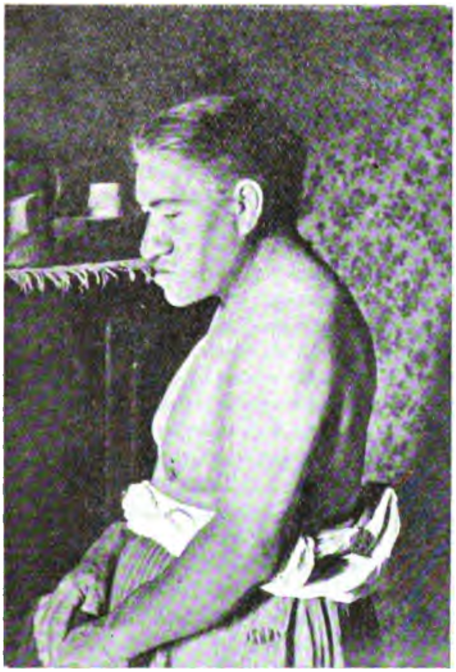
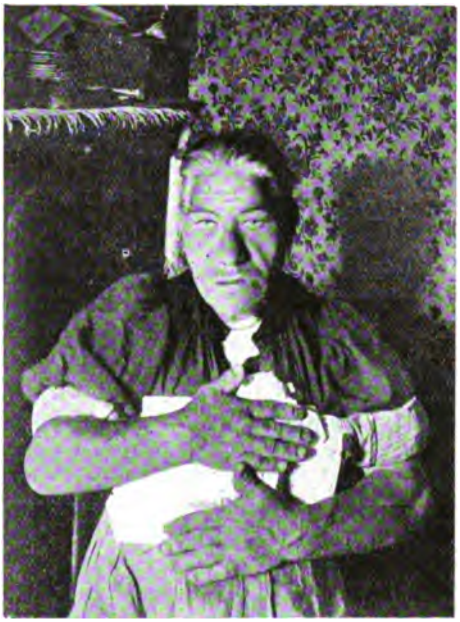
[*] According to Freund, acromegaly is a disorder of development—an anomaly of growth reversive in type. The large hands and feet, the retreating forehead, the projecting jaw, and the anthropoid attitude, are certainly suggestive of reversion ; but it is not a disease of development at all, as at least two-thirds of the cases occur after 21 years of age. Again, not infrequently he overlooks or forgets that sign-writing on the post, so useful for all who would propound a sound theory, viz., *quod nimis probat nihil probat*. Bringing disturbances of the reproductive function into causal relation with the alterations in growth is altogether gratuitous ; it is more in accordance with facts observed to consider them as symptoms or effects rather than the cause of the disease.

[†] Klebs held that in the large thymus, the vascular plexuses of the follicles are a "place for the formation of the endothelium of vessels." These are washed away with the blood stream, causing "universal luxuriance of vessel germs," which leads to giant growth and acromegaly. This view is untenable, inasmuch as the enlargement and persistence of the thymus gland, which it pre-supposes is not a constant factor. Thus of 34 autopsies collected by Furnival—in 17 the thymus was examined, it was absent in 7, hypertrophied in 3, and persistent in 7. Again, there is no actual new growth of blood vessels in the disease.

[‡] The neurotic theory rests on slender foundation. All kinds of neuroses may be present, and vaso-motor and trophic disturbances too, but all indications lead to the belief that the source is not in the nervous system, but in the ductless glands.



The evidence supplied by comparative anatomy and embryology thus shows that the pituitary body is a very complex organ, and that its anterior lobe still continues active. Not only that, but there are suggestive reasons for going a step further, and saying that the pituitary gland normally has a secretion which has something to do with body growth. Witness in the first place, the stunting of growth that occurs in post-nasal adenoids—structures developed round the pharyngeal orifice of a duct that bears a close embryological relation to the pituitary body. At one period of development, the pharyngeal tonsil and the pituitary body are in connection, and subsequently become separated by ossification taking place at the base of the skull, and not infrequently at early life, they remain connected by a fibrous cord passing through the body of the sphenoid. Moreover, the air cavities in communication with the nose, as the frontal maxillary, sphenoidal, and ethmoidal sinuses, which are all dilated in acromegaly, are contracted in post-nasal adenoids. So that nature's



intent regarding the dimensions of the face and head, in the formation of the physiognomy, is thwarted by both conditions, but in opposite directions. Lastly, after removal of adenoids, the rate of growth is increased, according to Malhorbes' carefully compiled statistics it is three times the average rate as estimated by the increase of height, weight, and chest measurements.

It is not improbable that the conditions of dwarfism and gigantism are but opposite extremes of the same process, and that both are due to deranged functions of the pituitary body. Those who have compared the skeletons in both conditions have been struck with the many points of resemblance.

Again, when we reflect that molluscum fibrosum is not a simple coincidence of acromegaly, but according to Marie a true phenomenon of the disease due to changes in the nutrition of the skin, and on the other hand that all Hebra's cases of fibroma were in individuals "stunted in bodily growth," and according to Van Harlingen, this is the experience of many writers as well as his own, it would seem that this change in the nutrition of the skin is correlated with deflection from the normal orbit of growth.

Returning now to acromegaly we note that in the beginning at least, it is closely allied to gigantism, and that both conditions probably depend on a disturbed condition of the pituitary body. Might it not be that gigantism is due to excess of normal pituitary secretion, and that perverted secretion is the cause of acromegaly, that one condition is due to an abnormal quantity, and the other to an abnormal quality of the products elaborated by this gland Dwarfism might be due to diminished normal secretion. Excessive function here as in other organs predisposes to pathological change, and so the giant often becomes an acromegalic; according to Sternberg about 40 per cent. of giants are also the subjects of acromegaly. In its incipiency, acromegaly is a condition of beginning gigantism. Earlier in some cases, later in others, normal secretion becomes pathological independent of excessive function, either by new growth formation, or by cyst formation or perhaps by both. It is a significant fact that in all the acute malignant cases of acromegaly so far recorded, a sarcoma of the hypophysis was always found; here the normal structure of the gland is quickly annihilated, and its normal secretion quickly arrested, and the disease develops at a correspondingly rapid rate.

Again when the pituitary body becomes diseased in acromegaly, the thyroid gland very frequently, perhaps, invariably becomes enlarged as if attempting to discharge a vicarious function, as if attempting to do the work the pituitary is now unable to do. If the thyroid fails in this effort, and becomes atrophied or degenerate, and does not furnish its own normal secretion, we have a myxœdematous condition super-added to that of true acromegaly. On the other hand, if the thyroid continues enlarged, we have supervening on the acromegalic condition, many of the symptoms of exophthalmic goitre, such as the profuse sweating, the nervous irregular heart and exophthalmos.

As in exophthalmic goitre, there is reason to believe that in certain cases, and in certain stages, we may have an increased thyroid secretion a diminished or a perverted one, that in the former case, thyroid feeding will aggravate every symptom, while in other stages, when some of the symptoms of myxœdema appear, and which are probably due to a diminished secretion, thyroid feeding will improve and ameliorate matters; so in acromegaly, during the stage of gradual symmetrical growth of bone, pituitary feeding would probably only aggravate unpleasant symptoms. On the other hand, when the disease in the gland has progressed so far as to cause selective enlargement and nervous symptoms, such as headache, vaso-motor disturbance, muscular weakness, and where it is probable that the normal pituitary secretion is diminished or partially perverted, at this time pituitary feeding will benefit.

We may conclude by saying that most indications go to show that the pathological conditions underlying this disease are due to late alterations along the original cranio-pharyngeal tract of early embryonic life (the best known remnants of which are the pituitary body and the thyroid), that this tract of the embryo is now closely associated with the growth centre, or is through some of its adult representatives the proportion regulator of the skeleton.

The central part of the thyroid gland is known to be the retrograding remnant of an organ provided with a duct, which opened at the foramen cæcum in the dorsum of the tongue. In man the duct usually withers away, but not always. Originally the gland was distinctively a secreting gland, the products of its activity, escaping into the pharynx. Now, that its duct is obliterated, and the central portion shrinks into the isthmus, the general tissue of the gland is changed into a series of capsules, so much like those of the pituitary, as to give a distinct histological resemblance of both organs.

When we reflect on the features of parallelism the thyroid and pituitary body exhibit in their early evolutions in vertebrates, on their close histological resemblance, on the enlargement that takes place in the hypophysis in conditions in which the thyroid is diseased, such as myxœdema and cretinism; and after thyroidectomy as the concordant results of Stieda, Gley, and others prove, does it not seem probable that these organs are physiologically related to each other, notwithstanding the opposite effects (Oliver and Schafer) their extracts have on the heart's action and on blood pressure, and that the part played by the thyroid in general metabolism may not be limited to elaborating substances having a manifest connection with mucin formation, but that other products may be sent forth from its follicles, that are allied to or connected with pituitary secretion?

[Read at November Meeting of New South Wales Branch of British Medical Association.]

NOTES ON SOME INTERESTING CASES MET WITH IN GENERAL PRACTICE.

By Wm. Morrison, M.A., M.D., Ballarat

I.—The first case I shall bring under your notice is one of *Tumour of the Testis in a child.* It is interesting chiefly on account of the early age at which it was first noticed, and its slow growth. H. B., six years of age, was brought to me by his mother on account of a pyriform swelling of the left testicle. In its lower portion it was about the size of a hen's egg, and tapered upwards to the thickness of a man's finger. It was firm, non-elastic, and produced no testicular sensation on manipulation. The boy was well-grown, and the family history was good. At the age of six weeks a small swelling, about the size of a bean, was noticed It increased slightly in size during the next six weeks, when an exploratory puncture was made by a surgeon, with negative results. No further treatment was adopted, and no alteration took place in the swelling till 12 months prior to my seeing the child. At that date he fell and injured the already affected testis. Rapid increase in size followed, though no pain was felt. I removed the testis, and healing rapidly occurred. The boy, now 11 years from the date of the operation, is well. The tumour was of a fibrocystic nature, some of the cysts containing cheesy material, others glairy mucus.

II.—*Arrested Development of the Abdominal Walls, causing Non-closure of the Cavity.*—This is rarely met with, judging by the dearth of information in our text books. I attended Mrs. A. in a natural labour (the fourth), and on examining the child (a female) found the condition above-stated. Though the muscular covering was absent the peritoneum had closed, through which one could distinctly see the viscera The parietes were wanting over the lower portion of the epigastric, half the right and left lumbar, upper portion of the right and left ilia, and all the umbilical regions. The extent of the deficiency of the covering made it impossible to perform any plastic operation. This opinion was shared by our late member, Dr. Whitcombe. We gave a hopeless prognosis. I swathed the abdomen in sheets of cotton wool, and awaited the end. Contrary to my expectations the infant seemed none the worse, and on examining the abdomen on the third day, I found that granulations were appearing at the edges and spreading over the surface. The process of healing went on rapidly and satisfactorily. I lately saw the child, now 10 years of age, well and strong.

III.—*Hydatid Cyst of the Medulla of the Humerus, causing fracture.* M. L., aged 17, consulted me about an injury to the arm which she received the day before. She tripped while running and fell on the left arm. The injury was immediately followed by great swelling of the part. It persisted till I saw her, and made an accurate diagnosis difficult. After three days' constant fomenting of the swelling, the parts had sufficiently assumed their normal appearance to make the diagnosis of a fracture of the humerus, about its middle, easy. The usual splints were applied, and the case proceeded so satisfactorily that in three weeks I fixed the limb in plaster of Paris, and allowed the patient to return to her home in the country. She returned after the lapse of three weeks. I found, on removal of the plaster of Paris, an ununited fracture. Under chloroform I rubbed the ununited ends together, and put the limb up again. When next, after a short interval, I examined the arm, I found considerable separation of the fragments, and a small separated portion of the bone lying between. After a consultation, it was determined to operate. My late partner, Dr Bradford, cut down on the outer aspect of the arm. Extending into the medulla of the humerus, and occupying the space between the upper and lower fragments, he found a hydatid cyst, with numerous daughter cysts. The case progressed favourably, and the girl returned home in three months, with a useful arm.

IV.—*Simple Single Ovarium Cyst.*—This case, interesting from the rapidity of its growth, and the very distressing symptoms it produced. Mrs. O., aged 21 (?), newly married, consulted me last year She stated that she had always enjoyed good health. About two months prior to her consulting me, she noticed she was "getting stout." Having been married three months, she naturally supposed she was pregnant. For a time she took no notice of her condition, but the swelling of the abdomen increased so rapidly, and the dyspnœa, vomiting, and œdema of the legs became so distressing, she was forced to try to obtain relief. On examining the patient, I found her unable to lie down in bed, the abdomen enormously distended, with the superficial veins injected; the legs and thighs œdematous; the cardiac function greatly disturbed, vomiting incessant, and utter inability to obtain rest or sleep. Dr. Pinnock saw the patient, in consultation, next day. The case was so urgent and the diagnosis so obscure, we advised her removal to a private hospital, with the view to a primary exploratory operation. Next day I operated, and removed a very large single cyst of the left ovary, almost free from adhesions. The patient made a rapid recovery, all her troublesome symptoms vanished, and I learn from her sister she has lately had a child.

V.—The last case I shall bring before you, for want of a better name I shall call a case of *Suppurative Peritonitis with Spontaneous Healing.* For some weeks its diagnosis was difficult, and the result a surprise to the doctors who saw it. J. H, aged seven, was seen by me in October, 1900, suffering from gastro-enteritis. The case progressed most unfavorably; relapses constantly occurred, and the administration of suitable nourishment was very difficult. After a fortnight the abdomen gradually distended, became tender to the touch, and on palpation I discovered what I took to be enlarged mesenteric glands. Periodic attacks of acute abdominal pain became a feature of the case, with high temperatures, thirst, vomiting, and dysenteric stools; the lungs at their bases became congested. I told the parents that the child was suffering from general tuberculosis. Dr. Scott kindly saw the case for me during a brief indisposition, and concurred in my diagnosis and prognosis. No change of any consequence took place for some days, when I was sent for on account of a sudden large discharge of pus per rectum. It continued at intervals of a few days, and amounted in all to several pints. An abscess pointed at the umbilicus, and discharged pus freely after the discharge by the bowel ceased. The boy's condition was so low that no operative interference was deemed advisable. Gradually the discharge of pus ceased, the abdomen became more natural, the lungs cleared up, and the condition of the patient improved. By the middle of January the boy could be wheeled out-of-doors, and he is at present in robust health. I may state that the family history on both sides is good.

[Read at the October Meeting of the Ballarat District Branch of the British Medical Association.]

ON THE CLASSIFICATION OF DISPLACEMENTS OF THE UTERUS.

By A. Watson Munro, M.D., F.R.C.S. Edin., Honorary Surgeon Women's Hospital, Sydney, &c.

1.—Uterine displacement has afforded a prolific source of discussion during the past century. Able men have put forward widely divergent opinions on its physiology and pathology; great ingenuity has been brought to bear on the therapy of the condition; mechanical "notions" in endless variety—a multitude that no man can number—have been invented to give relief. There is truth in what Lawson Tait says, that "since Simpson first brought the importance of uterine displacements before the profession in 1848, more nonsense has been written on the subject than upon any other that has occupied the attention of medical writers"; a trenchant criticism which gives poor encouragement to one desirous of adding a humble "one word more" on the point, and I utter my word not without misgiving. I only hope that, at least, the nonsense will not be added to.

2.—No doubt a uterine displacement is in general a symptom, or result, and of secondary importance in comparison with the causal lesion. The latter claims, says Winter, "a greater pathological dignity" than the deviation itself. Nevertheless, a fine diagnosis of the abnormal relationships of the uterus and of its parts and appendages, will not fail to guide the mind to a fuller apprehension of the etiological factor, and so to rational plans of treatment. "A thorough knowledge of torsion," says Schultze, for example, "and of all the causes that influence the rotation of the uterus, is of much assistance in the comprehension of obscure cases." Hence my reason for offering these notes.

3.—The scope of my paper is limited. I propose to state the position of the uterus in health, then to consider very briefly its pathological variations of place; to discuss the current terminology used in describing these, and to suggest a simple scheme for their classification.

To define the normal *locale* of the uterus:—the organ is situated within the pelvis, its long axis almost parallel to the median plane; it is placed behind the symphysis, "as far forward as the bladder will allow" (Hart and Barbour), and embraced by the pelvic fascia at the upper part of the cervix—this part, consequently, being a comparatively fixed point. The fundus, when the bladder is empty, inclines almost horizontally forward (anteversion), and it deviates a little from the mesial plane towards the right (dextroversion). There is a slight curvation of the organ over its anterior surface (anteflexion), and a very slight rotation around its long axis to the right, the left lateral margin approaching nearer to the abdominal wall (dexter-obliquity).

4.—In health, as well as in disease, variations from these conditions occur; slight and always temporary in the former, in the latter permanent and more or less pronounced. The physiological changes are merely excursions resulting from distention of the bladder and rectum, and from varying intra-abdominal pressure; these need not detain us here. To describe the pathological deviations the terms now in use are numerous, loosely-applied, and ill-arranged, and this is likely to lead to confusion in the mind of the student of these common diseases of women. Thus, the term anteflexion is stated to "imply a permanent inclination forward of the fundus uteri," but, in point of clinical fact, this is not the case,—for instance in the combination (uncommon no doubt) of this attitude of the uterus with a backward inclination of the fundus. No less distinguished a writer than B. S. Schultze is responsible for the definition I quote.

A more scientific course would be to first consider the state of the uterus in health (as above defined) and to base thereon a description and classification of the variations due to disease.

5.—A pathological displacement or deviation of the uterus, then, may be defined as a more or less permanent variation from this normal condition, the organ being not simply displaced, but also from some cause fixed, or, at least, unnaturally limited in its range of movement, and inhibited from a return to its normal place and posture.

6.—A displacement thus understood may affect the *position*, in the pelvis, of the uterus as a whole, its *inclination* to the horizon, its *obliquity* to the mesial plane of the body, the *attitude* or *posture* resulting from varying disposition of the parts of the organ with respect to one another; or any or all of these together.

The following table embodies this division of cases:—

DEVIATIONS OF THE UTERUS.

1.—Position:
- Elevation
- Descent (*i.e.*, varying degrees of prolapse)
- Anteposition
- Retroposition
- Lateroposition
  - Dextro-position
  - Sinistro-position.
- Hernia uteri.

2.—Inclination:
- Anteversion
- Retroversion
- Lateroversion
  - Dextro-version
  - Sinistro-version.

3.—Attitude:
- Extension
- Flexion -
  - Anteflexion
  - Retroflexion
  - Lateroflexion
    - Dextro-flexion
    - Sinistro-flexion.
- Torsion -
  - Dextro-torsion
  - Sinistro-torsion
- Inversion (of different degrees).

4.—Obliquity:
- Dexter-obliquity.
- Sinister-obliquity.

7.—My proposed classification is in reality an expurgation and re-arrangement of the present terminology, with the addition of a generic name for the deviations of the uterus due to errors in the relative disposition of its parts. It is simple in its main divisions. It presents to the mind's eye a clear idea of common abnormalities, as well as a readier means of analysing the more intricate occasional combinations—such as retroversion, with flexion of the organ over its anterior surface; anteversion, with flexion over its posterior surface, and so on.

Although a given inclination of the fundus may often imply a certain attitude or position of the uterus as a whole, yet such associations are not invariable; and, to prevent mental bias, it is better to keep the main types of displacement distinct in the mind, as they are in nature, and separately to study and record them. "To avoid confusion," says Locke, "by too few or too many divisions, is a great skill in thinking, as well as in writing which is but the copying of our thoughts; clear and distinct ideas are all that I yet know able to regulate the mean between the two vicious excesses."

8—The theme of this paper may appear somewhat pragmatical. It is submitted, however, with the view of asserting distinctions clinically demonstrable, and founded on observation of cases. I have myself found it serviceable at the bedside and in the study of gynæcological treatises. In the latter the phraseology is often slipshod or ambiguous. Thus, one finds the word *shape*, or *form*, used for some variety of flexion; but the shape, say, of a woman, as of her womb, is something quite distinct from her attitude. And, to take an illustration from Obstetrics, the shape or form of the unborn fœtus is quite another thing from its attitude, or, for that matter, from its position or inclination. Again, torsion of the uterus is defined (Schultze, Winter, Fritsch) as "a rotation of the organ as a whole"; but surely the twisting, or torsion, of a body is quite different from a rotation on its long axis. I propose that the term torsion shall be limited to those states of the uterus in which its attitude is altered—its parts changing their relative position to one another, as the result of disease; and that abnormal rotation, as described by Schultze, be called simply rotation, or, better, an alteration in the obliquity of the organ.

As an extreme instance of the loose application of terms may be mentioned that condition described by Herman, where a retroversion of the pregnant womb—characterised, in progress of gestation, by fixture of the posterior and large development of the anterior wall—is described as a *posterior obliquity* of the uterus. Bantock likewise, in his short work on Pessaries, illustrates the confusion by abundant quotation from authorities of undoubted standing in the department of gynæcology.

I trust that my remarks may be of service to some readers.

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OVARIAN CYST COMPLICATING PREGNANCY. OVARIOTOMY.

By J. A. Thyne, M.B., C.M., L.R.C.P., M.R.C.S., Millicent, S.A,

ON 17th January, 1900, Mrs. McC., *æt.* 34, 5-para, consulted me with reference to prolapsus uteri; she being at this time about three months pregnant. On examination nothing noteworthy was found except perineal defect from laceration at a previous confinement. On July 19th, I visited her and found that she had been confined about six or eight hours previously. She was in a dull apathetic state, lying with closed eyes; would not speak unless in reply; complained of headache. Enquiry disclosed the fact that for some time prior to confinement urine had been of dark "porter like" colour and scanty in amount. Presence of ascitic fluid in the cavity of the distended abdomen was plainly evident. The urine was found to contain tubes casts and albumin, which, however was not very abundant. Treatment was directed towards obtaining improvement of renal mischief. On the second day after confinement, 21st July, the patient had a severe and prolonged convulsive seizure. This attack was believed to be one of puerperal eclampsia. No recurrence took place, but in a few days as patient did not appear to be improving either locally or generally, paracentesis above pubes was resorted to, and a quantity (unmeasured, but probably 40 to 45 ounces) of ordinary ascitic fluid was obtained. Patient did not improve, and the local conditions remained much as before. Palpation revealed a solid central 'tumour" in the region of umbilicus. Patient became markedly worse, pulse frequent and feeble. The abdominal swelling, since the withdrawal of ascitic fluid which did not re-accummulate, appeared to be more marked on the right side than on left. On afternoon of 30th July, paracentesis was resorted to. On this occasion a Southey's tube was entered in the right lumbar region, where the swelling was most marked as stated. This resulted in withdrawal of a dark brownish green or bile coloured fluid. The tube was draining well when left. Fluid was highly albuminous, and left a dark brown "beef tea like deposit" on standing. Microscopic examination showed large granular cells somewhat like degenerated pus cells. I next saw patient about 4 a.m. following day having been sent for. Found tubes had drained well; amount of fluid obtained, 8 pints. Tube now removed. Patient did not seem to have derived any benefit from this tapping. On the contrary, she had seriously deteriorated since previous day, and now appeared to be moribund. Pulse about 135 or 140, feeble and irregular; face pale and expression ghastly. Gave some digitalis and strychnine. At 1 p.m. I found the patient still living, and a little better. She slowly improved, the urine became normal in character, but the abdominal enlargement persisted. The "tumour" in the umbilical region was hard, and apparently solid. The diagnosis of cystic ovarian tumour made. Patient regained strength sufficiently to get about again and attend to her household duties. Eventually, removal of the tumour was advised. Dr. Gribble administered chloroform on the occasion. The operation was done on the 5th November, and to lessen hæmorrhage, from adhesions or otherwise, calcium chloride was given for several days beforehand. The cyst was exposed in a few minutes, but the operation proved to be a somewhat serious affair, and took about 1½ hours to complete. The adhesions to parietes, omentum and intestine, were so extensive that at one time I was doubtful if the patient would leave the table alive. The tumour was so firmly fixed that a large amount of the fluid, escaping from the cyst during the process of evacuation, entered the peritoneal cavity. To get at the various cysts, so as to properly empty them with a trocar and canula, was impossible. The parietal adhesions in the umbilical region were particularly extensive and firm, and as a necessary procedure to the freeing of the tumour, the original incision had to be considerably enlarged. Finally, the section wound extended from about an inch above symphysis upwards and to left of and a little above the umbilicus, a total length of about 6½in. to 7in. Even then the freeing of adhesions was by no means an easy task. Of the adhesions only two—small and threadlike—were occasioned by the tappings, both parietal and in the right lumbar region. Omental and intestinal adhesions were, as far as possible, ligatured; the pedicle was ligatured, cyst removed, the peritoneal toilet completed as rapidly as possible, and abdominal wound closed with 13 sutures. Keith's drainage tube was placed in the recto-uterine pouch, iodoform-gauze and cotton wool dressing.

Patient left table in fairly good condition, but about an hour afterwards she exhibited signs of collapse. Saline with brandy per rectum, and digitalis, strychnine and ether hypodermically were resorted to. The signs of collapse increased. Pulse failed, lips became cyanotic, and a subcutaneous saline injection on outer aspect of thigh was next tried with improvement in condition, only to be followed by another relapse, and another subcutaneous saline injection in the other thigh. Patient again improved, and the improvement this time was maintained. Several additional hypodermic injections of ether and brandy were given. The Keith's tube was removed in about 56 hours Less than one ounce of blood-stained fluid was withdrawn through it by suction; section wound healed well and the stitches were gradually removed. Patient was kept in bed for five weeks, then sent home to stay in bed another week, so as to lessen the risk of occurrence of hernia—later, a hernia developed at lower end of wound. For several months after operation, patient had somewhat severe pain in back, probably reflex in origin due to irritation of nerves in pedicle.

A few weeks after patient returned home she became pregnant, the uterus being then as it was prior to operation, markedly retroverted. Reposition was effected by aid of vulsellum Pregnancy continued till 15th August, about 7½ months. When patient was seen about 3 a.m., the child had been born several hours. It was dead when seen, and was said to be so when born. Examination showed that spina bifida existed apparently along whole extent of vertebral column.

Patient writing on 25th September, said that she was feeling well, and able to do her work. The circumference at umbilicus then was 25 inches, and the scar of the section wound about 5 inches in length, and reached half an inch above umbilicus.

Perhaps the only excuse for publishing the records of this case lie in the fact that ovarian tumour, pregnancy and ascites coexisted and that some of the other conditions noted are not altogether uninteresting.

THREE CASES OF PERFORATING GASTRIC ULCER.

By G. E. Cussen, M.B., Ch. B, Ballarat.

THE following are the notes of three cases of perforating gastric ulcer which have come under my notice during the past two years. The diagnosis in two of the cases was demonstrated beyond doubt by operation, whilst the third case was concluded to be a perforation of the stomach by the history and clinical aspect of the case.

CASE I.—J. C., domestic servant aged 27, a robust, but somewhat anæmic young woman was admitted to the Ballarat Hospital on 31st July, 1899, complaining of severe pain in the left side. The pain although diffuse was worse over the lower ribs on the left side. During the previous six months, she had suffered from a feeling of fulness and weight in the epigastric region after meals with occasional vomiting. There had never been any hæmatemesis. On admission, the respirations were slightly increased, and short and jerky in character; deep inspiration causing a sharp stabbing pain in the left side. The percussion note was good all over the chest, and the vesicular murmur clear. There was a blurring of the first mitral sound, but no distinct bruit. The menses had been regular. Leucorrhœa was present, and three months ago she had undergone an operation on the uterus, presumably curettage. On examination of the abdomen there was marked tenderness in the left hypochondrium with rigidity of the upper half of the left rectus muscle. The case was treated as one of gastric ulcer, and she improved considerably, and at her own request was discharged on August 10th, 1899.

On 5th Oct, 1899, she was re-admitted with symptoms of peritonitis. On the previous evening she had been suddenly attacked with severe abdominal pain soon after a hearty meal. She was seen by a medical man, and sent to the hospital as a case of fulminating appendicitis. On admission, patient was collapsed with small, quick pulse, distension of the abdomen, rigidity of abdominal muscles and decreased liver dulness. Immediate operation was decided on, and an exploratory incision made over the appendicular region. The appendix was found to be normal, but milky fluid welled up through the opening. A second incision was then made over the stomach, and on opening the peritoneum there was a rush of gas, and a quantity of milky fluid was noticed among the intestines. There were some flakes of lymph on the stomach wall, and on searching, a perforation was found on the anterior surface near the cardiac end out of which some semi-digested food was oozing. The perforation was large enough to admit an ordinary lead pencil. It was closed with sterilized silk sutures, and the abdomen thoroughly irrigated with normal saline solution through both openings. After operation there was a temporary improvement in the patient's condition, followed by a relapse—the pulse rate increasing and vomiting of brown fluid occurring; strychnine and intravenous injection of saline were used without much effect, and she died on October 7th.

Case II.—J.R., aged 28, domestic servant. I was called to see her at 1 a.m., on Thursday morning, and found her suffering from acute pain in the left hypochondrium. She was somewhat collapsed, and tossing about the bed. She had had a hearty dinner that evening of meat, vegetables, etc., and a couple of hours after, on reaching for something on a shelf, felt acute pain in the left side, and became somewhat faint. She gave a history of the usual symptoms of anæmia, with severe pain and occasional vomiting after food. She had never had any hæmatemesis, menses regular but scanty. On examination, there was nothing very marked, so I gave her a ¼gr. hypodermic of morphia and told her friends to apply hot fomentations to the abdomen, and to let me know if her condition became worse. I did not get any message, and on calling next morning found that she was still suffering acute pain, and that she had all the symptoms of general peritonitis. The abdomen was distended, hard, rigid, and immoveable; liver dulness much decreased; temperature, 102°; pulse, 140; operation was suggested but declined. From this time on her condition became gradually worse, and she died on Saturday night, about 48 hours after the illness began. I think that this was undoubtedly a case of perforating gastric ulcer, the history and clinical features of the case all pointing to it being so. When I first saw her it was about four hours after the perforation took place, and if a laparotomy had been done then there might have been some chance of her recovery. I unfortunately did not diagnose it at that time, but in any case, I don't think operation would have been allowed.

Case III.—M. O., aged 23 years, occupation domestic servant. Was admitted to the hospital at 4.30 p.m. on 6th August, 1901, complaining of severe pain in the stomach. Patient states that the attack came on suddenly the previous evening at 9.30 p.m. A couple of hours previously she had had a full meal, and then went out to pay a visit, feeling quite well.

On questioning, she admits that she had pain below the left breast for the last two weeks or more, and says that the pain eased off at times, but was increased by a deep breath, and was of a sharp cutting character, if she attempted to laugh. Although the pain was worse after food, she says she has taken her ordinary meals up to the previous night, and she certainly had had a quantity of meat for her tea. The onset of the pain after ingestion of food was immediate as a rule. Last night, the patient states, she vomited three or four times, but had not been subject to nausea or vomiting previously. The vomited material was chiefly yellow bile, no blood was noticed.

Two years ago the patient was treated for anæmia and amenorrhœa, and the bowels have been habitually constipated.

The tongue, on admission, was dry and coated. Temperature 101°; pulse, 144; respiration' 30. There was marked tenderness of the abdomen in the upper part, and especially in the epigastric region. The abdominal muscles did not move with respiration, and the liver dulness was markedly decreased; lung and heart sounds normal.

The case was diagnosed as one of perforating gastric ulcer, and operation decided on. An incision was made over the stomach, and on opening the peritoneum there was a rush of gas. Some flakes of lymph were seen on the stomach, and after some trouble a perforation nearly the size of a three-penny-bit was found high up near the cardiac end. It was situated in the anterior surface near the lesser curvature. The peritoneum contained a quantity of dirty fluid. The perforation was closed with a double row of Lembert's sutures, a counter opening was made below the umbilicus to try and wash out the lower part of the peritoneal cavity, and a large quantity of dirty fluid was washed out through this. A drain tube was passed down into Douglas' pouch, and a gauze wick passed down to the stomach wound. The patient was very collapsed after the operation, but improved perceptibly after the administration of an intravenous saline. On the day following the operation she was fairly bright, the bowels moved twice naturally and flatus was passed; but on the following morning, it was evident she was collapsing, and she died at 10.30 p.m. on that day. A *post-mortem* was made. The skin and peritoneum were quite healthy where they were sutured. The perforation was completely closed, and the stomach wall was perfectly normal. The intestines were not congested, and there was scarcely any sign of peritonitis, except a few small flakes of lymph.

One could hardly expect a successful result in either of the two cases operated upon, as perforation had occurred from 15 to 18 hours previous to it being done. Case No. 3 would, I think, have recovered if done earlier, and even as it was, might possibly have done well if she had had more resisting power. The *post-mortem* appearances in this case (we could not get one in the other) were very encouraging.

In this case I made a counter opening lower down to wash out the lower part of the peritoneum, and certainly a large quantity of dirty fluid containing food particles did escape while we were washing out the abdomen.

As I have said there was not much chance for either case, but operation gave the only hope of recovery, and I think it was justifiable. In none of the cases had there been any hæmatemesis, shewing that severe, even fatal, ulceration can take place without any vomiting of blood. Case No. 3 was peculiar, inasmuch as she did not suffer with nausea or vomiting, and was able to take her meals without much discomfort.

[Read at the October Meeting of the Ballarat District Branch of the British Medical Association].

Trained Male Nurse seeks engagement in mental or ordinary medical cases. Has had considerable experience in mental nursing, massage, etc., and is accustomed to travelling with patients to Europe and in the Australasian States. Unexceptional testimonials. References kindly permitted to Drs. F. N. Manning, Jarvie Hood, W. E. Warren, T. S. Dixson.

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CLINICAL AND PATHOLOGICAL NOTES.

An Unusual Sequela of the Adenoid Operation.

The operation for the removal of adenoids is performed so often nowadays, that it is well to record any untoward result arising from it.

The details of the following case which I am allowed to publish by the courtesy of Dr. J. B. Nash, who saw the child a few hours before death, will be of value in drawing attention to a possible risk connected with the operation.

The patient, a girl of ten, had had a purulent discharge from the left ear, intermittently, for about two years, with occasional earache. This had been treated in a desultory fashion by syringing.

On the 15th October, 1901, adenoids were removed. There is every reason to believe that the operation was done skilfully, and with full aseptic precautions. Patient was quite well until the 20th, when she began to complain of earache and sleepiness. On the 23rd she was very feverish and evidently had rigors. The day after there was a very profuse and offensive discharge from the left ear, with relief of the earache. Patient complained, however, of headache, and pain in back of neck. On the 26th and 27th there seemed an improvement, but on the morning of the 28th patient was exceedingly ill, and a swelling was noticed under the left ear. The right ear also began to discharge for the first time. During the next few days, during which the patient went from bad to worse, with high temperature and rigors, the swelling under and behind the left ear continued to increase. On the day she died Dr. Nash saw the case for the first time, and incised this swelling. He found the mastoid and the bone for fully half-an-inch behind it stripped of their periosteum, but there was no discoverable opening in the mastoid. He also found that the pus was burrowing down among the great vessels of the neck.

I think there can be little doubt as to the sequence of events in this case. The operation super-imposed an acute inflammation on the chronic suppurative otitis. The mastoid cells became involved, giving rise in one direction to a lateral sinus thrombosis, and in the other to a Bezold's abscess in which the pus had not only found its way among the vessels of the neck, but had burrowed backwards, and appeared under the periosteum behind the mastoid process. This case raises the question:

Ought one to operate for adenoids while there is a purulent discharge from the middle ear? All who perform this operation often, know how common attacks of acute catarrhal and purulent otitis are after the operation, even when there has been no pre-existing ear disease. Lennox Browne suggests that accumulations of wax in the ears may precipitate this inflammation, but he does not explain how. It would perhaps be well if any purulent middle ear disease could be cured before removing the adenoids, but in the majority of cases this is impossible. However elaborate the cleansing of the middle ear may be, as long as adenoids are present, re-infection of the ear from the naso-pharynx is constantly going on. The removal of the infecting centre is an essential for cure, and in some cases is sufficient of itself to bring about a cessation of the discharge. And the danger of setting up an acute process in an ear from which there is a purulent discharge can be minimised by careful antiseptic treatment of the ear, both before and after the operation.

The parents should be warned to be on the look out for any ear-ache or discharge after the operation, and if such occur, to bring the patient at once under observation. Were these precautions taken I believe that disasters like the one recorded above could be entirely avoided.

RICHARD ARTHUR, M.A., M.D.,
Hon. Assistant Surgeon, Ear and Throat Department, Sydney Hospital.

Two Cases Illustrating the Dangers that may follow operations on the Naso-Pharynx.

(FROM THE PATHOLOGICAL LABORATORY, PRINCE ALFRED HOSPITAL, SYDNEY.)

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CASE I.—Diplococcal Pyæmia and Malignant Endocarditis. L. H., female, aged 4 years. Admitted, giving the following history:—Removal of enlarged tonsils and adenoids ten days ago. Two days later seemed feverish and lost appetite. Vomited twice two days ago; bowels loose and motions very offensive. The clinical notes state that, on admission, the temperature was 103°.6; pulse, 132; and respirations 40. She was pale and cyanosed, the tongue dry and dirty; the breath sounds were harsh all over, but there were no accompaniments, and the heart sounds were clear. There was no abdominal distension, the spleen was palpable, and the liver margin palpable half-an-inch above the umbilicus. The child was *in extremis* and died in a few hours.

Post-mortem examination.—In the larynx the false chords were considerably swollen. There was no tracheitis. Both lungs were uniformly mottled red and white, the red areas being about quarter inch in diameter, some petechial and subserous in character, others deeper (collapsed areas). Most of the petechial patches showed a small white shotty head about the size of a pin's; these projections could be well felt on drawing the fingers over the surface. They were minute pyæmic foci There was no broncho-pneumonia, and the bronchial glands were not enlarged. In the heart the tricuspid valves contained two sets of recent vegetations, one the size of a pea, the other of a grain of wheat. Smears from these revealed numbers of capsulated diplococci staining with Gram's method. The liver was large and showed cloudy swelling; the spleen large and moderately soft; the kidneys swollen, and their cortex very pale. In the ileum were a few minute submucous petechiæ and Peyer's patches were slightly eroded; some lymphatic glands at the base of cœliac axis were enlarged and firm; the glands along the course of the iliac vessels were dark red in colour. The urine drawn off p.m. contained albumin.

Case II.—Streptococcal Otitis Media and Basal Meningitis. M. W. (male). Aged 5 years; admitted 11th November, 1901; died 14th November 1901.

History.—Suffered from headaches for nine months, attributed to adenoids. These were removed two weeks ago. Since then, the pain has been worse and paroxysmal with severe screaming fits, and occasional vomiting; complains also of pain in the left ear, and parents thought he was slightly deaf on that side.

On examination: Well nourished, temperature 102·4°; pulse 112; respiration 28. At intervals seems in great pain, and screams. Quite conscious, but drowsy. Very tender about the neck, and there is a slight rigidity. Face, especially on the right, is hyperæsthetic. No other nervous symptoms—eyes, pupils, knee-jerks, etc., normal.

Next day he was much worse; the pain more severe; temperature 102°. During the morning, proptosis of the right eye and intense œdema of the lids developed. In the ears, the right membrane was healthy, the left red intense, slightly bulging and without the light reflex. Under chloroform, nothing abnormal found in the pharynx. The eyes showed engorgement of the retinal veins, but no neuritis (MR. S. HUGHES).

On the 13th, the right eye was more swollen; the left now similarly affected. Great pain when the head is bent. At 10 p.m. he had marked Cheyne-Stokes respiration, and died the following morning.

The *post-mortem* examination (brain only) showed: A thick yellow purulent exudation all round the base of the brain, the optic tract, medulla, and pons, and between the cerebellar hemispheres. It extended into the fourth ventricle and iter. In the third and lateral ventricles, the exudation was turbid. In the ependyma of the latter, were numerous minute petechiæ. One purulent exudation extended into the vertebral canal. The convolutions of the vertex were flattened. The left middle ear and mastoid cells were full of pus, the right healthy. Both cavernous sinuses, but especially the right, contained a turbid exudation. The lateral sinuses were occupied by dark clot; in the left one, a white a.m. clot extended into the internal jugular vein. The sphenoidal cells were healthy. Microscopical examination of films of the exudation showed numerous streptococci. (*s. brevis*).

J. Burton Cleland, M.B., Ch.M.,
Resident Pathologist.

A Case of Symmetrical Plantar Rheumatism.

A. B., a man, 31 years of age, on July 29th last started on a long railway journey while suffering from a mild febrile attack (influenza ?).

Next morning after a journey of 18 hours he found that both his legs from the knees down were "stiff and sore;" the right calf was particularly so. At the end of three or four days the left leg completely recovered. A fortnight later the stiffness and soreness left the right leg, only to settle on the plantar aspect of the right foot. The pain was always absent when the foot was elevated; was increased greatly for a few minutes when the foot was moved from the horizontal into the vertical position, becoming much easier as the foot became warm, and worse on exposure to cold. On dorsiflexing the toes, and thus stretching the plantar structures, the pain was brought on even with the foot elevated. A small swelling developed on the inner side of the right foot above the plantar border, was not tender, but pitted slightly after pressure, and especially after exercise. Fourteen days later the pain on the right foot completely disappeared. On the advent of a few days of cold damp weather the pain returned mildly in the same spot in the right sole and acutely in an exactly identical spot in the left plantar region (hitherto free) and exhibiting exactly the same characteristics as in the right foot. As a result of treatment, but principally I believe because of warm weather coming on again, the pain in both soles vanished, and the patient is quite free from any discomfort. Transient rheumatic pains were felt in the left deltoid region during the course of the disease.

Family History.—No gout, rheumatism or any family disease.

Personal History.—No gonorrhœa, syphilis or previous attacks of rheumatism or gout; urine free from albumin and sugar.

Rheumatism of the plantar fascia I believe to be correct diagnosis.

Treatment.—Hot air baths 300° F.; blisters, sod. salicylate, piperazin, thialion, pot. iod, vin. colchici, were amongst the principal remedies tried.

The ordinary anti rheumatic diet, with Vichy as a table water was used.

C. A. Hogg, M.B., C.M. Edin., Parramatta.

MIRROR OF HOSPITAL PRACTICE IN AUSTRALASIA.

PRINCE ALFRED HOSPITAL, SYDNEY.

(Under the Care of Mr. Hankins, Hon. Surgeon Ear, Nose, and Throat Department.)

Case 1.—Sarcomatous growth from the external layer of the *dura mater* forming the sigmoid sinus and filling the mastoid cells.

A. B., aged 15 years, sent to the Prince Alfred Hospital on November 9th, 1901, by Dr. Burkitt, of Dubbo, complaining of a painless enlargement of the bone in the mastoid region. The patient had influenza ten months ago, which was followed by chronic hardness of hearing. About ten weeks ago he had some irritation in the meatus and picked his ear with a hair pin. He soon afterwards noticed that the ear was prominent and the bone behind it enlarged. He says he felt a little pain at this time behind the ear, but he has never had earache nor discharge. A fortnight before admission he was again conscious of pain and thought the swelling was increasing. On examination the membrana tympani was dull, but not otherwise abnormal. Hearing for watch, six inches. The pinna was prominent and the mastoid region enlarged. The skin and soft part perfectly normal, and no pain or tenderness on strong percussion. In spite of the history—influenza, deafness, and later on, irritation in the meatus, and picking with a hair pin, there seems to be nothing pointing to inflammatory trouble, and new growth or hydatid seemed a possible explanation.

Operation.—On Nov. 15th the cortex of the mastoid process was carefully shaved away, and after penetrating for less than one-eighth of an inch, soft tissue was reached. The bone was then removed from the whole surface of this mass, without injuring the latter, exposing the sigmoid sinus posteriorly. The growth, which was the size of a small horse bean, pale pink in colour, and not very soft, was found to occupy the mastoid cells, and had, apparently by pressure, thrown two or more cells into one. The bone was not eroded or infiltrated, nor was there any pus present. On lifting the growth carefully out of its bed, it was seen to be attached to the membranous wall of the sigmoid sinus by a small pedicle passing through a foramen in the inner table of the skull, following, most likely, the course of an emissary vein; the point of attachment being about the sixth-of-an-inch in diameter. It was then removed and the point of outgrowth gently curetted. The mastoid antrum was explored and found healthy, as was all the bone in the neighbourhood. At the time of the operation it was a question whether it would be proper to compress the sinus above and below the outgrowth and excise the portion of the dura from which it grew, but it was thought most prudent to await the result of a microscopical examination, the report of which is appended. The growth being found to be a firm spindle-celled sarcoma of probably very slight malignancy, the healing of the operation wound has been allowed to go on without interference, and the cavity is is now nearly closed. The patient will be carefully watched for any sign of recurrence.

Report of Dr. J. B. Cleland, Resident Pathologist.

The growth—a firm. irregular, pale pink mass about three-fourths the size of a bean—consists of a spindle-celled sarcoma. The cells tend to arrange themselves in whorls. When such a one is cut across, the appearance is that of a clump of round cells. There is a strong tendency in the growth to advance towards fibrous tissue, consequently its malignancy is probably not great. Dr. Rennie agrees with this opinion.

Case II.—Case of intrinsic epithelioma of left side of larynx. Thyrotomy and evisceration of larynx.

C. D., aged 65 years, admitted October 8th, 1901, has been complaining of hoarseness and loss of voice for three months. Latterly the breathing has become difficult and noisy. On examination no enlarged glands can be felt, and the larynx is not enlarged nor tender. It is freely moveable. By laryngoscope a growth can be seen on left vocal cord, but mostly appearing from beneath the cord. It extends anteriorly up to the commissure, and posteriorly to the tip of the vocal process, and sufficiently large to seriously interfere with respiration. Tracheotomy was done under cocaine anæsthesia. Owing to the restlessness of the patient there was some difficulty with the tube after the tracheotomy, and the result was an attack of inspiratory pneumonia, from which the patient recovered in about a fortnight.

Operation.—On November 1st the thyroid cartilage was exposed by vertical incision; sawn in the middle line by circular saw worked by surgical engine, the upper end of trachea plugged with a sponge and growth exposed. As it was uncertain if the growth crossed the middle line, the soft tissues of the larynx on both sides were peeled from the cartilage, leaving the arytænoids in position. Cocaine and adrenal extract were used to lessen hæmorrhage, and there was very little bleeding. The thyroid cartilage was united with two catgut sutures passing through the perichondrium and the skin wound completely closed with horse-hair sutures. The tracheotomy opening was curetted and the tube removed. The patient was fed by rectum for twenty-four hours and then was able to swallow fluids. After a few days he took soft solids, and was up and about by the ninth day—although very feeble. The breathing since the operation has been perfectly easy, and the pain on swallowing but slight. He can make himself understood perfectly in a loud whisper. After about three weeks some fœtor of the breath was noticed and a small sinus opened at the lower end of the wound. This seems to be caused by some necrosis and exfoliation of cartilage. The patient left the hospital after five weeks, and is to attend as an out-patient.

Examination by laryngoscope now shows some inequality on the two sides. A band of mucous membrane overlaps the left edge of the larynx, whilst the right side looks normal. Deep down some white patches can be seen, probably exfoliating cartilage.

It is too soon of course to say anything about recurrence, but in any case it is quite clear that the operation has been justified by the great relief obtained. The patient is infinitely more comfortable and independent than when wearing the tracheotomy tubes He is also improving greatly in general health.

Dec. 11th.—Six weeks after operation the

patient coughed up a piece of necrosed ossified cartilage, and the fœtor of the breath has disappeared.

Report of Resident Pathologist.

The growth consisted of an irregular, pale, friable mass about the size of a walnut, though flatter. Microscopically it presented the characters of a squamous epithelioma with typical epithelial downgrowths, but without definite cell-nests. Dr. Jamieson confirmed this opinion.

REVIEWS AND NOTICES OF BOOKS.

A Manual of Medicine.—By W. H. Allchin, M.D., F.R.C.P., F.R.S. Edin. Volume III., Diseases of the Nervous System.

This volume comprises all the articles on diseases of the nervous system in the manual, and forms one of the best and most up-to-date handbooks for medical students and practitioners we have seen. Dr. Allchin is to be congratulated on having secured as collaborators such well-known men as Sherrington, Ormerod, Aldren Turner, James Taylor, Collier, and others. Professor Sherrington contributes an excellent physiological introduction, and gives a useful summary of all the most recent researches on the physiology of the neurone, and the localisation of function in the different parts of the central nervous system. An interesting chapter by Aldren Turner follows on "The neurone in its relation to the diseases of the nervous system," and here we find degenerations classified according to the neuronic system involved, instead of as ascending and descending. Thus we find described the cerebro-spinal, or upper efferent neurone system, commonly called the pyramidal tract; the spino-peripheral, or lower efferent neurone system; the lowest afferent, or posterior ganglion neurone system, and so on. This is followed by a concise general symptomatology of the diseases of these different neurone systems in a tabulated form.

Dr. Turner gives a brief but generally good account of degenerative diseases of the brain and its membranes. The article on aphasia and speech defects, by James Collier, is clear and well-written. He follows generally the teaching of Charlton Bastian on this subject. Colman and Collier deal with the group of functional diseases, such as epilepsy, chorea, hysteria, etc. The work concludes with a useful chapter on the trophoneuroses, by the editor himself; one on medical ophthalmology, by James Taylor; and one on the medical application of electricity, by Abrahams.

We can recommend this work as the best of the smaller works on neurology.

G.E.R.

A Handbook of Diseases of the Nose and Pharynx. By James B. Ball, M.D. Lond, Fourth edition. Bailliere, Tindall & Cox, London. 1901.

This well-known work has now reached its fourth edition, and well maintains its popularity with the profession. Without being increased in size, it has been brought well up-to-date. The illustrations are numerous and helpful, many of them borrowed from other standard works, the sources being, in most cases, acknowledged. One exception, however, is Fig. 41, evidently taken from Grünwald's work on "Nasal Suppuration," and intending to show the mode of applying that author's cutting forceps in amputation of the anterior end of the middle turbinal. This cut always struck us as absurd, inasmuch as the forceps are shown in a position they could not possibly occupy in actual practice, namely, passing right through the bony bridge of the nose instead of entering by the nostril.

G.T.H.

The Surgical and Medical History of the Naval War between Japan and China during 1894-95.—Translated from the original Japanese report, under the direction of Baron Saneyoshi, F.R.C.S. Eng., etc., Director-General of Medical Department of Imperial Japanese Navy, by S. Suzuki, M.R.C.S. Eng., L.R.C.P. Lond., etc., Deputy Inspector-General of Hospitals and Fleets, Imperial Japanese Navy.

This elegant volume of 514 pages, with numerous engravings, printed by the Tokio Printing Company, 1901, is a very valuable addition to the literature of military surgery. As it is correctly remarked in its preface, "Much has been written about the wounds in war on land, but of naval warfare we possess no medical history. The lessons of Trafalgar and Lissa, and the war between Chili and Peru have been lost to us, and there has been no previous experience of treatment of the wounded on ships since the modern revolution in naval warfare."

We may add that in the two last naval battles of the world's history—Santiago and Manila—the victorious Americans had one killed and one wounded in the former, and only few slightly wounded in the latter—too few to make it worth while writing a medical history of these battles; whilst the vanquished Spaniards, with a heavy casualty, between killed and wounded, of 600 in the former and 381 in the latter battle, had their fleets so destroyed that the survivors had to be treated on shore, and therefore can throw little light on the results of treatment of such serious cases on board ship.

This, then, until the next great naval war, will be the chief work of reference in matters of naval surgery, and, to the credit of Baron Saneyoshi, it must be said that he has quite risen to the height of this privileged, though very responsible, position.

The engagements referred to in this book are the naval battles of Phung-do and Yalû, the attacks upon Tan-chow, Wei-hai-wei, the Pescadores, etc., and the bombardments of Hwa-yuan-kow, Talien Bay, Port Arthur, and Yinching Bay.

Of these the most important was the battle of Yalû, in the Haiyäng Sea, with a dozen ships on each side, which beginning at 12.50 p.m., grew hotter and hotter until the climax was reached between 2 p.m. and 3 p.m., ending at 5 p.m., and resulting in the destruction of most of the warships of the Chinese fleet.

A total of 3826, between officers and men on the Japanese side took part in it, and the total number of shells which hit their ships was 134, with a casualty of 90 killed and 208 injured. The ships which suffered most were the Matsushima and the Hiyei. The former, amongst other injuries, had the surgery obliquely perforated by a 26.5 c.m. shell, damaging the majority of the medicines and surgical instruments, and causing the death from shock of two severely wounded men who were at the time under treatment, and disabling, with spinal concussion, Surgeon-General Kawamurra.

On the Hiyei the medical officers were even more unfortunate. Owing to the peculiar design of this ship, of which a good plan is given in this volume, the surgery had been established in the ward-room, At 1.30 p.m., a 30·5 c.m. shell came through the captain's cabin into the ward-room, exploding and smashing up things all round, killing the two surgeons, T. Miyake and C. Murakoshi, with the paymaster and four attendants, and wounding two other attendants. The wounded of this ship (37 in all) were thus compelled to rely upon non-medical men for temporary relief, and it was not until the ship returned to the fleet station near the Choppeki Cape, that she was at last able to have the sufferers treated by the surgeons from other ships.

On perusing this account of the plucky way in which the Japanese won their laurels on this trying day, one feels almost inclined to agree with the following remarks of Baron Saneyoshi :—"A naval battle is a very formidable thing, much more so than a land fight, for it consists of either firing big guns, ramming, or the discharge of fish torpedoes, by which a whole ship may suddenly be destroyed or sunk, even when it is hit by shells without exploding. Ships' planks, furniture, etc., are destroyed, and many lives are lost from the flying splinters. When the shells explode fearful damage results" But to us the most formidable thing seems to be that a whole shipful of wounded may, after a battle, have to steam for several days with insufficient surgical dressings and medical *personnel*, as happened to the Matsushima. Owing to the destruction of the surgery, such important medicines as anodynes and stimulants were wanting, and the patients were moaning with agony everywhere. Baron Saneyoshi very wisely concludes, that for the future it would be prudent to have two surgeries in two different parts of each ship. I would further add that, to avoid the possibility of any ship running short of medical material, besides the two surgeries, which, according to the author, should be above the water line, a third store full of surgical dressings, instruments, etc., should be established in an accessible place below the water line. Apparently, when ships are not completely sunk, but little damage is done to them below the water line.

The total number of killed and wounded on the Japanese side were 371, and of these the vast majority were the results of fragments of shells or splinters, together with a large number of severe burns from explosives. Very elaborate and accurate classifications of wounds according to parts of body, proportions of wounds to shells, etc., are given. The treatment adopted was strictly modern and conservative, only three amputations having been performed; but in spite of the excellent principles governing treatment, there seems to have been more suppuration than our army surgeons met with shell wounds in South Africa. This question of suppuration is amply discussed in a special chapter, and good reasons given to excuse its occurrence.

The last 140 pages deal with diseases and injuries apart from wounds in battle. Much excellent information is to be found in these, particularly in the pages devoted to Kak'ke (Beri-beri). A full account is given of the progressive diminution of this terrible scourge in the Japanese navy, following improvement in the dietary scale, and the gradual substitution of other cereals to rice. It seems that Japanese do not take kindly to European meat and fat diet, and that they are racially susceptible to Kak'ke, more so than their neighbours the Chinese or the Koreans, hence the reason why it has not been prevented altogether.

We recommend this book for careful study to all naval and military surgeons. All those who have read Surgeon-Colonel W. Taylor's lecture, delivered before the Aldershot Military Society, on "The Medico-Military Arrangements of the Japanese Army in the Field," know how very perfect these are, and how in no points do they remain behind those of European armies. To these the perusal of Baron Saneyoshi's fine volume will not be a revelation, but just the production that they would expect from the medical service of the Japanese navy.

To Australians in general, and to politicians in particular, this volume should be an eye-opener as to what can be expected in matters of military or medical organisation from our 3000 miles near neighbours the Japanese.

T.F.

Diseases of the Stomach and their Surgical Treatment. By A. W. Mayo Robson, F.R.C.S., etc., and B. G. A. Hoynihan, M.S. Lond., F.R.C.S. London: Bailliere, Tindall, and Cox, Henrietta Street, Strand. 1901.

This book is an enlarged and illustrated edition of the Hunterian Lectures, delivered by Mayo Robson early in 1900. We are told in the preface that the lecturer sought the assistance of a colleague as a collaborator in order that the lectures might be converted into a volume within the space of time it was felt desirable to publish it.

That the risks of surgery in connection with diseases of the stomach are far less that what is generally believed, the authors point out by stating that one of them, in a series of over 200 operations on the stomach, can refer to the last 75 consecutive cases with only one death, and that the other can claim 47 cases with only three deaths. Anatomical considerations are first dealt with, and reasons are given why the median incision is not always the best.

In dealing with cancer of the stomach, attention is drawn to the tendency of cancer to drift towards the lesser curvature—the chief lymph current being in that direction—and to the importance of removing the lymphatic glands and the stomach wall to which they are attached.

In the chapter on gastric ulcer and its complications, we are told that before the abdomen is opened, it is quite impossible to say what operation or operations will be required, and the surgeon must be prepared to adapt himself to circumstances on discovering the position of the ulcer and the conditions associated with it. The remarks on the preparation of the patient are well worth noting. "It has been the custom with many surgeons to put stomach patients through a long course of preliminary treatment, such as frequent lavage of the stomach and abstension from food before operation. This, as a rule, is quite unnecessary, and certainly inadvisable in the greater number of cases, first, because the treatment is depressing and debilitating in the case of patients already exhausted by a long illness; secondly, as proved by Dr. Harvey Cushing's bacteriological investigations, the stomach contents speedily become aseptic if the mouth be cleansed and aseptic foods administered; and thirdly, as proved by ample clinical experience, elaborate preliminary treatment is unnecessary to success."

Gastro-enterostomy seems to be the operation *par excellence* with the authors. It is recommended for nearly all the ills that the stomach is heir to. For instance, it is advised—not always as the only alternative—for congenital stenosis of the stomach, hourglass stomach, cancer of the stomach, gastric ulcer, gastrorrhagia, dilation of the stomach due to obstruction by cancer of the pylorus, pyloric tumour result of ulcer, tetany and tetanoid spasms in association with gastric dilation, perigastritis, gastropsis.

In this operation the jejunum may be joined to the anterior (Wolfier's method), or to the posterior (Von Hacker's method) wall of the stomach. It is the posterior method that the authors advocate. They say that with the use of the bone bobbin, the whole operation may easily be completed in half an hour, and it may even be done in half the time. The surgeon is warned that in doubtful cases the responsibility of advising for or against an operation rests with him. Before deciding to operate he should be able to answer two questions in the affirmative. First, "Can I perform an exploratory operation without adding serious risk to the life of the patient, already threatened by the disease?" Second, "Is it possible that good will result from the operation?" In these days of big operations, it would be well if surgeons before undertaking operations, not only on the stomach, but in any other part of the body, were to put these questions to themselves. It is generally understood that certain operations are undertaken with the idea of prolonging life. If there is a fair probability that life will be prolonged and made fairly easy, then there need be no hesitation. But operations, the immediate risk from which is enormous, which leave the patients, if they survive, in a condition which is most deplorable, should not be undertaken by any right-thinking men.

It is doubtful if this book will be of much interest to the busy general practitioner, but it will be read with much profit by all those who come in contact with this class of surgery.

C.P.B.C.

Journal of the Association of Military Surgeons of the United States. James Evelyn Pilcher, Editor.

We have received the first number of the above (August, 1901), published in journal form, and congratulate both the Association and the Editor on this new departure. The Journal is well got up in every way, and this issue contains the proceedings of the 10th annual meeting of the Association held at St. Paul, Minnesota, May 30th to June 1st, 1901. The Journal will be published quarterly during the present Association year, but it is hoped to publish it monthly thereafter. The aim of the Journal, like that of the Association—of which it is the offspring—will be "To promote and improve the science of military surgery."

A Text Book of Medicine.—Edited by George A. Gibson, M.D., D.Sc., F.R.C.P. Edin., Physician to the Royal Infirmary, Edinburgh. Edinburgh and London: Young J. Pentland.

This work has been edited by Dr. Gibson, the well-known Edinburgh physician, and published by Mr. Pentland. The object has been to present a text-book of medicine for the use of students and practitioners, and to give an outline of the modern teaching of medicine in Great Britain. While the text books of Bristow, and Fagge (the first edition) are exceedingly valuable works, as reflecting largely the individual experience of the authors, they are not suitable for the modern student of medicine, and the great widening of the field of knowledge renders it impossible for any one author to be thoroughly familiar with all branches of medicine. Dr. Gibson has been successful in securing the co-operation of well known physicians in different departments of medical practice, so that in this book the student and practitioner will find a good account of the present state of knowledge of the science and practice of medicine.

The first volume opens with a chapter of some 70 or 80 pages on the general pathology of disease, from the pen of the late Professor Kanthack, supplemented by Professor Sims Woodhead. These names are a sufficient guarantee for the general excellence of this article, and the reader is to be congratulated on having a concise statement of the most recent work on this subject. The student of medicine, beginning his study of the practice of medicine, having already attended his pathology course, will find it useful to refer to this article to refresh his memory on the salient points of pathology in their relation to practical medicine, and we are glad that the editor has decided to include this chapter in his work.

The next article deals with general diseases, and embraces not only those usually recognised as acute specific diseases, such as fevers, but also a variety of others, such as acute pneumonia, gout, rheumatism, rickets, diabetes, syphilis, tuberculosis, etc. In the chapter on tuberculosis we find described, not only the general disease, but also its effects on the different organs of the body; thus we have a good description of acute miliary tuberculosis, then the different forms of pulmonary tuberculosis in another part of the article. We have a brief description of chronic tubercle of the membranes of the brain, and tubercular tumours of the central nervous system; but in the second volume, under the heading of "Diseases of the Nervous System," we find an excellent account of acute tubercular meningitis. Acute pneumonia has also been included in this chapter, and is not referred to under the diseases of the lungs, though its sequelæ are discussed there. No doubt this nosological position is more in accord with recent researches on the pathological relations of the pneumococcus of Fränkel; but, perhaps, it would be better in future to use the term "pneumococcal infections." rather than "acute pneumonia," as the title of this article.

Another section is devoted to a description of the diseases due to chemical poisons. This is a useful feature in a text-book of medicine, and here we have an admirable account of the effects of these poisons on the system, and the differential diagnosis discussed. Some of the points may require modification in a future edition, if the contention of some of the Manchester physicians as to the identity of arsenical and alcoholic neuritis is confirmed by future researches. The remaining articles in this volume on diseases of the alimentary system are all good.

The second volume begins with descriptions of the disease of the heart and vessels, by the editor himself, and Drs. Mitchell Bruce and W. Russell. The section on the diseases of the kidney is excellently written by Professor Rose Bradford. His account of Bright's disease (acute and chronic) is one of the best in existence, and should tend to clear up much of the confusion which has surrounded the description of the various forms of this disease.

In the large section on the diseases of the nervous system, the articles are not all of uniform excellence. Some of the best are those on the diseases of the nerves, by Dr. A. Bruce, well illustrated by good diagrams; on regional diagnosis, cerebral tumours, and brain syphilis, by Dr. Mott; and others on various functional disorders by Drs. Risien, Russell, and Colman.

There is an excellent index at the end of the second volume; but we think the addition of the authors' names to the different sections in the table of contents would be useful. The work should rapidly gain popularity as being a concise, yet comprehensive, text-book for students, and a ready reference-work for busy practitioners who have not the time to consult the more elaborate systems of medicine, and we can thoroughly recommend it as a valuable addition to a medical man's library.

G.E.R.

THE AUSTRALASIAN
MEDICAL GAZETTE.

SYDNEY, 20TH DECEMBER, 1901.

THE PROPHYLAXIS OF CANCER

CANCER has been chosen as a subject of general discussion at the approaching Congress at Hobart in February next, and the Committee has invited intending members to discuss this subject from various points of view; no suggestion, however, has been made that the specific question of prophylaxis should be considered. Does the present state of our knowledge of the etiology and clinical course of cancer warrant us in seriously discussing this aspect of the question? Notwithstanding all the work that has been done ón the etiology of malignant growth, and the various theories which have been propounded and supported by the eloquent writings of pathologists, we may say that nothing definite is known on the subject. But the work has not been in vain, and it has certainly tended to confirm the belief that, while there is an inherited disposition to the development of cancer, some additional extraneous exciting cause appears to be necessary. Comparisons between the clinical course and history of cases of cancer with those of other diseases known to be caused by micro-organisms certainly leads one to the belief that cancer likewise is caused by some organism, and numerous attempts have been made to discover one. From time to time we have had announced the discovery of a specific microbe of cancer, but pathologists are not as yet agreed, and time must elapse for further investigation before we can say that the true *materies morbi* has been discovered.

While we must admit that the clinical evidence at present available in favour of the infectivity of cancer from one individual to another is practically nil, we cannot shut our eyes to the fact that there is distinct evidence in favour of the view that the epithelial cells from cancer growths differ from ordinary epithelial cells in their power of growth in abnormal situations, and of developing into tumour formations. But this appears to be only possible in a person already the subject of cancer. There is no doubt, for example, that the skin of the inner side of the arm may become directly infected from contact with an ulcerating scirrhus of the breast, and that wounds made in the course of operations for removal of cancerous growths can become infected with cancer unless care is taken to prevent it. We see this is the recurrence of cancer in the scar of the operation wound. Hence the epithelial cells of a cancer must contain some specific infective element. But if this is so, how is it that we do not meet with cases of direct infection? And if the propagation of the disease does not take place in this way, how is it that the disease is on the increase? There must be some condition in our modern civilisation which favours the development and spread of the malady. There is also some evidence in favour of its being more common in certain districts; this was made out by the English Collective Investigation Committee, which showed that the disease was more frequent in the low lying land along the course of rivers, which were liable to overflow their banks. The histories of some cases also point to possible infection of patients living in houses previously occupied by cancer patients. But until we have more definite and exact knowledge of the conditions which determine and favour the development of the disease our attempts at prophylaxis must be imperfect. Still in view of the decided increase of the disease in the different Australian States the possibility of prevention should be seriously considered. We would suggest that the Congress should appoint a Collective Investigation

Committee to collect information on the question of infection, and to draw up a report for presentation to a subsequent meeting. This would be a profitable result of the discussion on this subject.

CONTRACT MEDICAL PRACTICE.

It must be admitted that the present state of contract medical practice is unsatisfactory in many ways both for patients and doctors. The suggestion of a correspondent in our last issue that a committee might be appointed at the beginning of Congress to meet and discuss the whole question of contract medical practice, and bring up a report for presentation to a full meeting later on, is worth consideration, though we fear that the different conditions of practice in the different States renders it impossible that any scheme could be adopted which would be applicable to all the States.

What are the chief causes of dissatisfaction at present in Lodge practice? The objections raised by medical men against contract medical practice may be stated briefly as follows: 1. The small amount of remuneration offered by the lodges. 'This varies in different states and in different districts, but we may say that the rate varies from six to twenty shillings per member per annum. It must be granted that this is a very small sum to be paid by a member for medical attendance on himself, his wife, children, and perhaps adopted children and widowed mother. 2. A second cause of constant complaint by the lodge doctor is the absence of any income limit in the great majority of medical benefit societies, so that the medical man has often to attend at club rates a member of a friendly society who is in a much better financial position than himself. 3. A third difficulty is the large amount of unnecessary work which falls to the lot of the lodge doctor. Members of medical benefit societies either visit or call in the lodge doctor frequently for trivial complaints, for which they would not think of securing medical assistance if a fee had to be paid for each consultation. This involves a greater demand upon the time and physical energy of the lodge doctor, for which he is certainly not compensated at present rates of remuneration. 4. The fourth difficulty, which is a very real one in some cases, is the domineering attitude assumed by the lodge member towards his doctor. The doctor is treated as the servant of the lodge members, and he is bound to fall in with their views or else runs the risk of being reported to the lodge, and possibly of losing his appointment as medical officer. Needless to say, this attitude tends to destroy that feeling of confidence and trust which should exist between doctor and patient, and which is essential for satisfactory treatment. These are the chief difficulties in lodge practice from the doctor's point of view.

Now the lodge members have also their grievances, and we shall try to put their side of the question. 1. Many lodge members look askance at the doctor, because they know that he is taking their lodge with a view to make money, and to get an introduction to practice. They accordingly look upon him rather as one who is trying to take advantage of them. 2. They complain of want of attention on the part of the doctor, and general carelessness in their treatment. Hence many of them if they can afford it, prefer to call in another doctor in case of serious illness. When the lodge doctor has a large number of patients to see each day, he cannot possibly examine them all properly, and hence every now and again he is pulled up by a charge of neglect or carelessness brought against him by the lodge member. We do not for a moment suggest that these grievances on the part of the lodge members always exist. On the contrary, we know that in some cases the relation between the doctor and his lodge patients is a perfectly harmonious one for many years, but the above may be taken as a fair statement of the common attitude of the lodge member towards the doctor. Every now and then these grievances become accentuated, and culminate in a dispute between lodges and their medical officers, with the result that relations are still further strained, rendering an amicable settlement a matter of increasing difficulty. Now it seems to us that the whole question of contract medical practice requires revision. It may be that the entire abolition of all contract practice would be the best solution of the difficulty; but while this might be desirable from some points of view, it can hardly be said to come within the range of practical medical politics at the present time, and we must admit that contract medical practice in some form is a necessity. In what direction then can we look for some reform? How is it possible to remedy the chronic state of ill-feeling and irritation between lodges and their medical officers? It is obvious that any proposed reform must secure the interests, not only of the medical officer, but also those of the lodges which we all recognise to serve a useful purpose in the community. The first and essential reform must be the restriction of contract medical practice to those who, by reason of their financial position, may justly claim medical attendance at reduced rates. In other words, the enforcement of an income limit of £200 or less per annum is a necessity. And as a corollary to this, contract practice must be restricted to the usually recognised Friendly Societies, such as Oddfellows, Foresters, Druids, etc., the existence of which is based on the principle of mutual assistance in time of need. It is important that medical men should recognise this, and the principle of contract practice should not be admitted in the case of any other societies, whether they are registered under the Friendly Societies' or the Companies' Acts.

The next essential is a better rate of remuneration both for ordinary medical attendance, for midwifery and operations, etc. £1 per member per annum is the very lowest rate which should be paid. A third essential is the securing of better attendance of lodge members by the medical officers, and the relieving of the lodge doctor of unnecessary attendance for trivial ailments, thus giving him more time for attendance on serious cases. How these objects are to be attained may be a matter of wide divergence of opinion, but we would venture to suggest for the consideration both of lodges and medical men, whether payment might not be made per visit or consultation, instead of per head per annum. We think that if this principle were adopted, the members of lodges would get better attendance during sickness, since the medical officers would be relieved of a good deal of unnecessary work, and the work done would be more adequately remunerated.

THE MONTH.

The New President of the Intercolonial Medical Congress.

We learn from Dr. Gregory Sprott, the General Secretary of the Sixth Intercolonial Medical Congress, that the Executive Committee were not quite sure of their power of appointing a new president of Congress in place of the late Dr. R. S. Bright, since he had been elected by the Congress at Brisbane. The Committee have, therefore, appointed the Hon. G. H. Butler, M.R.C.S. Eng., M.L.C., Acting President, this appointment to be confirmed by Congress at its first meeting. We may point out that the Executive Committee have the power of appointing a new president absolutely, and a precedent for this course exists in the election of Dr. P. Sydney Jones as President of the Third Congress, held at Sydney in 1892, by the Executive Committee at that time, in place of the Hon. Dr. H. N. MacLaurin, who had been elected at the congress in Melbourne, but who resigned in consequence of his visit to England.

Treatment of the Insane at Broken Hill.

It has been the custom in the past for cases of suspected or actual insanity to be cared for in the gaol at Broken Hill, pending their removal to a Hospital for the Insane in South Australia. It is certainly most undesirable that the stigma of the prison should be attached to persons suffering from mental illness, and not guilty of any crime. We are, therefore, glad to note that a proposal has been made that these patients should in future be treated at the hospital, at the Government expense, prior to their removal to a special hospital.

The New South Wales Institution for the Deaf, Dumb, and Blind.

The report of this institution, presented to the 40th annual meeting of subscribers held last month, speaks of the large amount of good work that is being done in educating the deaf, dumb, and blind children. Pupils are admitted from all parts of this State, and, under certain conditions, from other States also. The Directors desire to impress upon the parents of such children the urgent necessity for sending them to school while they are young—say from seven to fourteen years of age—as it takes from eight to ten years for such a child to acquire sufficient education to enable it to compete successfully with those who are not afflicted. The healthy state of the institution is shown by the fact that no death has occurred in it for the past 25 years, notwithstanding the large number of children who have passed through it in that time. The receipts for the year amounted to £4 684 1s. 3d., and the expenditure to £4,664 5s. 5d. The reports of the General Superintendent, of the Special Examiners, and some specimens of composition by the pupils are appended. The President (Sir Arthur Renwick, M D., M.L.C.) was re-elected, also the members of the honorary medical staff—Dr. Storie Dixson, oculist and aurist; Dr. W. C. Wilkinson, physican; Dr. H. Marks, surgeon.

Federal Quarantine.

The Premier of the Commonwealth, in answer to a question asked recently in the Federal Parliament, stated that it was not the intention of the Federal Government to take over the quarantine departments of the different States this session.

The St. John Ambulance Association

From the Eleventh Annual Report of this Association, we learn that the most important work of the year has been the establishment of the St. John Ambulance Brigade for the State of New South Wales. The headquarters' officers of the Brigade are as follows:—Lieut.-Colonel T. S. Parrott, V.D, Commissioner; Major R. E Roth, D.S.O., Medical Officer-in-Chief; Major J. H. A. Lee, O.C.S.M., Deputy Commissioner; and Captain G. Lane Mullins, A.M C., Brigade Chief Superintendent. New branches have been formed at Suva (Fiji), Katoomba, and on the Milson's Point railway line from Chatswood to Hornsby. During the year 723 candidates have attended full courses of instruction, of whom 499 have passed the examinations, and 19 have qualified for medallions. Wheeled litters and stretchers have been placed at a number of central stations and suburban manufacturing establishments, but the Committee state that Ashford litters and ambulance materials are much required for the city and suburbs. The Committee wish to emphasise the fact that the instruction given by the Association is only intended to give relief, with judgment and care, until the arrival of duly-qualified medical aid; and further, that this useful and humane work cannot be carried on with the vigour, which its importance demands, without substantial pecuniary aid from those to whom its large and invaluable aims commend it, and to them they earnestly and confidently appeal for continued support.

A Proposed New Women's Hospital for Sydney.

We understand that it is the intention of the Benevolent Society of New South Wales to erect a new Hospital for Women (of about 200 beds) on the ground lately purchased by them in Paddington. The site is a very suitable one, comprising about 5½ acres, and extending from Glenmore road to near Oxford-street. The house at present standing on the property has been converted into a temporary maternity hospital. For many years the midwifery department of the Benevolent Asylum was the sole training-school in Sydney, both for medical students and midwifery nurses, and even of late years, when several other kindred institutions have sprung up, it has held its position as the chief Lying-in-Hospital. The other branches of the society's work have been entirely separated from the maternity branch, and are now carried on in premises situated in Valentine-street, near the site of the old institution. It is expected that the Women's Hospital now carried on in Crown-street, Surry Hills, will become merged with the new hospital, and that about 100 beds will be allotted to the midwifery side, and a like number to the treatment of diseases peculiar to women.

Presentation to a Maternity Hospital.

The nurses who have been trained in midwifery at the Benevolent Society's Maternity Department since 1896, have lately shown their appreciation of the training received by subscribing for the purchase of a handsome surgical instrument case, with a suitable inscription, for use in the new Women's Hospital which is to be erected on the ground facing Glenmore-road, lately purchased by the Society. The presentation was formally made at the temporary hospital, "Flinton," on November 19th, by the Matron (Mrs. Graham), in the presence of a large gathering, consisting of the Directors, Hon. Medical Staff, Nurses and others. Sir Arthur Renwick, as President of the Board of Directors, accepted the present, and cordially thanked the donors for their valuable and useful gift.

Sydney Medical Mission.

A meeting was held in the vestibule of the Town Hall on Wednesday, November 27th, to receive the First Annual Report of the Sydney Medical Mission. The Mayor of Sydney (Sir James Graham, M.D) presided; there was a large attendance. The Mission was started at 192½ Elizabeth-street in November, 1900, through the liberality of Mrs. Hugh Dixson, who gave £200 for the purpose; Miss Julia Carlisle Thomas, M.B , Ch.M., is the Medical Superintendent. The medical report of work done for the year is as follows:—Patients treated, 2,047; visits paid to the homes of 413 patients, 1,957; attendances at dispensary of 1,634 patients, 6,892; operations needing a general anæsthetic, 7. A nominal charge of 3d. is made for medicine, but only about one-half of the patients can afford to pay it. The Chairman, in his introductory remarks, spoke highly of medical missions in Edinbugh and other parts of the world, and bore testimony to the good work being done in Sydney by Miss Thomas. Dr. Grattan Guinness made an eloquent appeal to those present for funds, with the result that a sum of £181 10s. was promised in the room.

Admission of Patients to Sydney Hospital.

The Board of Directors of the Sydney Hospital, after a prolonged discussion, have decided to abolish all payments for patients admitted to the hospital. This will mean a loss of about £1,400 per annum, but it is a step which will commend itself to the whole profession, and is calculated to diminish considerably the abuse of the hospital by persons ineligible for treatment in a charitable institution.

The Bubonic Plague

In connection with the reappearance of plague in Sydney, it is satisfactory to note that the Public Health authorities are not requiring the removal of plague contacts to the Quarantine station, but have substituted the much more rational practice of their medical surveillance for a term long enough to cover the incubation period of the disease.

The Prevention of Consumption in Melbourne.

A largely-attended public meeting was held in the Town Hall, Melbourne, for the purpose of forming a Victorian Association for the Prevention of Consumption. The Governor-General presided, and had seated near him Mr. Barton, Sir Samuel Gillott, Sir Malcolm M'Eachran, Sir Arthur Snowden, Sir Thomas Fitzgerald, Dr. Gresswell, Dr. Jamieson, Dr. Springthorpe, and other gentlemen.

Lord Hopetoun, in the course of his opening speech, said the question of the prevention and cure of consumption was a very melancholy one for him personally, as years ago he lost his only brother through a virulent form of consumption. He believed that it had been computed that in Melbourne as many as 800 deaths occur annually from consumption, the great majority being in the prime of life—between 20 and 45 years. He believed he was on sound ground when he asserted that one of the most prevalent causes of consumption was the abominable practice of promiscuous expectoration, which he was sorry to say was very general in the city streets. A great effort should be made to check this practice, and he was glad to learn that in Sydney a crusade against it had been seriously entered on. He ventured with some feelings of apprehension to express the opinion that the inordinate length of skirts worn by the fair sex in these days was a serious menace to the health of the community when taken in connection with the spread of consumptive germs. He was glad to hear that the Victorian Sanatorium for Consumptives, which had branches at Echuca and Macedon, was in a sound, prosperous condition, and he earnestly hoped the new association they were forming that evening would go hand in hand with the sanatorium, and let there be no desire to kill the older society. It was agreed "That a Victorian association for the prevention of consumption and other forms of tuberculosis be now established on the lines of the National Association of Great Britain;" and "That a standing committee be appointed to give effect to the resolution."

The Medical Board of Victoria.

The secretary of the Medical Board of Victoria desires to call the attention of those medical practitioners who, during the last twelve months, have changed their addresses without having notified him to do so as early as possible. This is necessary, as the *Medical Register* for 1902 will be published early in the coming year.

The Melbourne Coronership.

It is probable that Dr. Mullen, of the Lunacy Department, will be appointed to the position of District Coroner, vacant through the promotion of Mr. G. C. Morrison to be Under Secretary. Dr. Mullen combines the qualifications of a barrister and a medical man, and as he is already in the public service the Government considers that his appointment is the best one that could be made.

Women's Hospital, Melbourne.

Under a by-law passed several years ago it has been necessary for at least three of the honorary surgical staff of this hospital to be present at consultations and operations. It is recognised that this provision was necessary at that time when major operations were regarded much more seriously than they are at the present time. At a meeting of the committee held last month the surgical staff were present to confer with the committee as to the desirability of altering this by-law so as to admit of only two members of the staff being present at operations, instead of three. Notice was given that this alteration would be proposed at a meeting of the committee this month.

THE FIGHT AGAINST TUBERCULOSIS IN AUSTRALASIA.

◆

II.

Queensland.

UP till the year 1899 the campaign against tuberculosis in Queensland had been restricted to the individual efforts of a few medical men, who by lectures and publications tried to draw public attention to the subject. The great interest manifested in the movement in the continental countries of Europe and in England eventually spread as far as Queensland, and resulted in the formation of the "Association for the Prevention of Consumption," which took place at a public meeting held in the Town Hall at Brisbane on September 5th, 1899, under the presidency of the Governor, Lord Lamington. A strong executive committee was appointed, consisting not only of medical men, but a number of other public-spirited men who fairly represented all classes of the community. An annual subsidy of £50 was granted by the Government to the Association, which has since become the centre of the campaign waged against tuberculosis in Queensland. The work hitherto accomplished in this State may be summarised as follows:—

SANATORIA.

The first sanatorium for the treatment of consumptives was opened at Dalby, in October, 1900, as a Public Institution maintained wholly at the public expense for the maintenance and medical treatment of persons suffering from consumption in the curable stage. Dalby is situated about 150 miles inland from Brisbane, on the Main Western Railway, about 50 miles on the other side of the coast range. At the time of the first annual report (July, 1901), the medical officer reports that 50 patients (32 male and 18 female), had been admitted. The total accommodation of the sanatorium, which is equipped on modern lines, amounts to 55 beds.

The immediate effect of the opening of the sanatorium was an unfavourable one, as far as the bulk of consumptive patients was concerned, although undoubtedly benefitting the small number of phthisical sufferers who could gain admission. The reason was this. The Brisbane Hospital, and several other institutions, recognising the danger from infection which threatened other inmates of the hospital, shut its doors to the consumptives. This action was quite justified, as the open space at the disposal of the Metropolitan Hospital, in particular, is limited, and other patients, either suffering or recovering from illness, are naturally more readily predisposed to contract pulmonary tuberculosis. In the meantime, the fear of the tubercle bacillus had gone abroad among the public, and a large number of boarding-houses refused admission to those suffering from the disease in a pronounced form For the same reason a good many consumptives either lost their employment, as in some instances their fellow-clerks were chary about continuing to work in the same room with them, or else found increased difficulty in getting a new appointment. Thus a truly pitiful situation was created for persons affected with tuberculosis in an advanced stage. They were driven from pillar to post, neither sanatorium nor hospital opening its door to them, and in addition they were unable to make a living. Recognising the considerable amount of risk to the whole community incurred by the large floating population of persons mostly with an abundant expectoration of tubercle bacilli, the Association, on repeated occasions, urged upon the Home Secretary the necessity of providing suitable accommodation for these sufferers. The Government fell in with this proposal, and a new hospital for chronic disease was opened about six months ago in the newly-fitted-up buildings of the Diamantina Orphanage. This has relieved the strain to a great extent, but more is wanted. The thanks of the community are due to the Government for its timely action, as private charity had been conspicuous by its absence.

SPITTING.

As spitting is the principal cause of the spread of pulmonary consumption, the Association approached every municipality in Queensland with a view of having a bye-law passed making expectoration upon the footpaths a fineable offence. Sympathetic answers were received by the vast majority of them, and the Brisbane Municipal Council has the honour of being the first to introduce a bye-law to that effect. There is no doubt that before long most other municipalities will follow suit. A similar bye-law has been passed by the Railway Commissioner with a view to prevent spitting upon the floors of railway carriages. So far it has not been carried into effect.

DISINFECTION OF PREMISES.

The subject of the disinfection of premises following upon the death of a consumptive patient has been vigorously taken up. The Health Act, which was passed in 1900, renders notification of a death from phthisis compulsory. The large powers with which the Health Commissioner has been invested will be of considerable advantage in this direction. Moreover, the Association has drawn up detailed instructions for the guidance of municipal authorities. It may confidently be expected that this channel of infection will be closed within twelve months or two years.

EDUCATION.

The necessity of educating the public upon the subject has not been lost sight of. Public lectures have been given and leaflets have been distributed. The principal advantage must always be derived from a proper education of the consumptive patient himself, and it must be left to the individual medical man to impress upon his phthisical patient the necessity of taking adequate precautions, and seeing that these precautions are in reality being carried out. At the same time, it must be pointed out that it is not fair to treat the unfortunate sufferer as a social leper. To hand, for instance, leaflets written in brusque language to a delicate girl is hardly likely to achieve the object How can we expect the consumptive patient to go out of his way to protect a community which has so little consideration for his feelings and his well-being?

NOTIFICATION.

A compulsory notification is out of the question with the scattered population of Queensland, neither has it been attempted. It is doubtful whether a voluntary notification would be of any appreciable benefit in lessening the incidence of tuberculosis.

MEAT AND MILK.

As far as the danger from meat and milk derived from tubercular animals is concerned, the precautions hitherto in operation are totally inadequate. A great deal of good may, however, be expected from the large executive powers which the new Health Commissioner possesses. Of course, the opinions recently expressed by Professor Koch will have an important bearing in this direction, though they will hardly tend to increase watchfulness.

FUTURE WORK.

A great deal remains to be done yet. Our next object must be to find suitable accommodation for all those consumptives who are not in position to look after themselves. The Association has urged upon the Government the advisability of establishing a consumptive wing in connection with some of the country hospitals, which have the necessary open space at their disposal. This would be the least expensive way of dealing with the matter in Queensland. Such a system of decentralisation would, on the one side, considerably relieve the heavy strain put upon the metropolitan institutions; on the other, it would be a decided benefit, from a climatic point of view, to the consumptive himself. It is but fair that, hand-in-hand with our efforts to protect the community at large against the disease, should go our endeavour to cure or benefit the unfortunate sufferer.

RESIDENT MEDICAL OFFICER, new Sanatorium for Phthisical Patients of the Poorer Classes, Blue Mountains, N. S. Wales. An unmarried medical man, preferably one who has gained experience at a sanatorium, required for the above on June 1st, 1902. Salary, £300 per annum, with board and residence. Applications, stating age and qualifications, to be sent to Dr. CECIL PURSER, Lewisham, Sydney, N. S. Wales.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales.

THE regular monthly meeting of the Branch was held at the Royal Society's Room, on Friday, 29th November, 1901, Dr. Foreman, President, in the chair. There were also present. Drs. Flynn, Cleland, Jamieson, Terrey, Crago, Todd, Rennie, Fiaschi, McDonagh, Agnes Bennett, Hankins, Taylor Young, Sandes, Gordon MacLeod, J. Morton, R. H. Jones, Doak, Maitland, Bowker, Herschel Harris, Geo. Armstrong, Sinclair Gillies McKay, Stokes, Vallack, Mills Sawkins, Gordon Craig, Brady, Morgan Martin, Bennet, Cosh, Gledden, Litchfield, McMurray, Thring, J. A. Dick, Palmer, Binney, MacPherson. The Hon. J. B. Nash, M.L.C., Freyer, and others.

Visitors: Drs. Heggaton. Clatworthy, Tilley, Deck.

The minutes of the previous meeting were read and confirmed.

The **PRESIDENT** announced the nomination of Drs. Tilley and Clatworthy of North Sydney.

Dr. **FLYNN** read a paper on "A Case of Acromegaly." (See p. 517).

Dr. F. A. **BENNET** said he rose chiefly to congratulate Dr. Flynn on his having at length burst the fetters of a hypersensitive nature, and come out upon them with a paper. Not but that Dr. Flynn was known in the literary section of our profession, his recent articles on "Heredity in Disease," having evoked much and favourable comment. This, however, was the first occasion upon which he had undertaken to read a paper before the members of the British Medical Association. To-night's paper, all would admit, was an excellent and attractive one, giving plenty of evidence of care and technical knowledge. It was more ambitious in its strain than what they were usually accustomed to listen to here—much being original—and above all, speculative. His suggestion as to the exact cause of gigantism and acromegaly, viewed in their relation to pituitary secretion, resolving itself into a matter of quantity and quality, appeared to him, to be both sensible and ingenious. By far the most interesting part of the paper was what might be termed the biological portion, and here Dr. Flynn, a student of evolution, was at his best. The most recent text books told them that acromegaly was probably due to alteration in function of the pituitary body, but Dr. Flynn, with much knowledge and reason on his side, undertook to shew that this probability was a certainty, and in so doing he was nothing if not thorough, for in his explanation he took us back through the ages of what he had been pleased to call their "ancestral history," back to the good old days of amphioxus and petromyzon, where life seemed satisfied to run placidly on a water vascular system. Dr. Flynn had incidentally shown them—what appeared to him—the reason why posterior nasal adenoids tended to stunted growth. His suggestion that pituitary secretion might be the ultimate cause of molluscum fibrosum was novel and startling. He thought that Dr. Flynn's paper must be regarded as a valuable and scientific contribution to the subject he had undertaken to discuss, and if his suggestions and reasoning were not to be accepted as conclusive proof, yet they would go far to show that alteration in function of the pituitary body was not a fact collateral, but was the cause of acromegaly.

Dr. **MILLS** rose to congratulate Dr. Flynn on having given them a most able paper admirably descriptive of the disease, and illustrating its causation. As a lecture on the disease it was perfect.

Dr. **SINCLAIR GILLIES** had special interest in Dr. Flynn's case, having had the opportunity of examining the patient two years ago. He was very much disgusted that he could not induce the patient to be present on a previous occasion.

Dr. **MILLS** read for Dr. Hinder a paper on "Cases Illustrating the Surgical Treatment of the Gall Bladder and Bile Ducts," to appear in a future issue.

The discussion was adjourned owing to the unavoidable absence of Dr. Hinder.

Dr. **MCKAY** read some notes on "A Successful Case of Partial Hepatectomy,"to appear in a future issue.

Dr. **CLELAND** exhibited pathological specimens.

South Australia.

THE usual monthly meeting was held at the University on Thursday evening, 28th November, 1901, the President (Dr. Todd) in the chair. Present.—Drs. Swift, Watson, J. C. Verco, Brummitt, W. Anstey Giles, O. Smith, Cooper, Plummer, W. A. Verco, Gault, Scott, Gregerson, Glynn, J. A. G. Hamilton, Harrold, A. A. Hamilton, Lendon, Symons, H. Russell, Evans and Gunson (Hon. Sec.) Visitors.—Several medical students.

EXHIBITS.

Dr. **SWIFT** exhibited two children on whom he had performed laparotomy for intussusception. A. G., *æt.* 9 months, was admitted into the Children's Hospital on August the 23rd, and discharged on September 1st. At midday on August 22nd, the child was suddenly taken ill with pain and vomiting. During the day the vomiting continued, and blood and mucus were passed per rectum. At 9 a.m. he was admitted into the Children's Hospital. A tumour could be felt to the left of the middle line in the transverse colon. Under chloroform the bowel was inflated, and after two attempts the tumour could no longer be felt. At 8 p.m. the tumour was again to be felt in the same situation, and blood and mucus—but no fæces—were still being passed by the bowel; so laparotomy was performed, and the intussusception was reduced. The child vomited a few times after the operation. The bowels acted on the 24th, and the recovery was uneventful. H. C., *æt.* 8 months, was admitted on October 31st, 1901. At 10 p.m. on October 30th, the baby suddenly screamed violently and went very pale. Since then it has vomited every few minutes, and has passed blood and mucus per rectum with great straining and pain. She was admitted at 5 p.m. on 31st. There was no apparent distress, but the abdomen was too rigid to make out any tumour. At 9 p.m., although there had been no symptoms since admission, the child looked drawn and ill, so chloroform was administered and a distinct tumour could be detected to the left of the umbilicus. No tumour could be felt per rectum, but the withdrawal of finger was followed by blood and mucus. The abdomen was opened in the median line just below the umbilicus, and with considerable difficulty the intussusception was brought out of the wound, and delivered without much trouble, proving an ileo-cæcal invagination. The walls of the cæcum were very œdematous, and at the lowest point of the cæcum there was a deep dimple. Much patience and gentle manipulation were required to restore the wall to its normal level. The appendix, being very long and much congested, was ligatured and removed. There was great collapse. The baby was very ill for the first four days with much vomiting and pain. The bowels acted at 1 a.m. on the 2nd, and she gradually convalesced. There were two or three points of special interest in each of these cases. I chose the median incision with deliberate intention, as from my own experience and from watching my confreres I had come to the conclusion that this was the site, and was to be preferred to one over the tumour, in either semilunar line or over the cæcum. I found I could do all that was required through this incision, and, except for a little difficulty in delivering the tumour into the wound in the second case, the preliminary parts of the operation were easy. Having operated early, there were no adhesions. It was in the closing of the wound I experienced the greatest amount of difficulty. In each case there was a good deal of collapse. The anæsthetic had to be discontinued, then the child began to strain, and before the edges of the wound could be drawn together the distended intestines bulged into the wound. The latter is so small that it is only with the very greatest trouble and a certain amount of fortune that the stitches are tied. It has been suggested that the stitches should be passed as soon as the incision has been completed. This, I think, would be worth trying, but it would not obviate the chief difficulty, viz., of keeping the intestines and omentum from being caught in the wound.

Professor **Watson** showed the following specimens on behalf of Dr. J. A. G. **Hamilton**:—

1. *Malignant Adenoma of Uterus with Ovarian Disease.*—Uterus and appendages removed from a virgin, *æt.* 58, who, four years after the cessation of her menses, developed a persistent metrorrhagia, which, after lasting ten months, became associated with hydroperitoneum and slight daily rise of temperature. The uterine cavity is bulged like a gourd by a friable growth (glandular), the discharge from which probably infected the vagina, producing there an implantation papilloma, at first suspected of being the source of the hæmorrhages. The right ovary is represented by a cauliflower-like mass, which stood in causal relation with the free fluid in the peritoneal cavity. The growth in the vagina, which covered the area of a sixpenny-piece, was removed a month before. The abdominal operation of clearing out the pelvis of inter-adherent structures would have been impossible in this case, had I not discarded pedicle needles and mass ligatures in favour of clips and exact anatomy, as recommended by modern authorities.

2. *Pseudo-Ovarian Cysts the Size of Ostrich Eggs.*—The walls are thin, but very tough. No ligature was necessary in their removal, as they stripped easily from the Fallopian tubes stretching over their walls. Their contents (fluid) coagulated after immersion in spirits for a few days, producing white cheesy matter. Fourteen years ago the patient, a five-para, *æt.* 53, was tapped for encysted fluid in the left lower abdominal quadrant by Dr. Gardner.

3. *Adeno-Myxoma of Right Ovary, the Size of an Adult Head.*—In removing a secondary implantation tumour, attached in front of the pancreas, the superior mesenteric vein was unfortunately wounded. Patient, a multipara. *æt.* 54, succumbed four days later.

4. *Interstitial hard Fibroma of Posterior Uterine Wall.*—It is surrounded by a semi-translucent vascular capsule, which separates it from the surrounding uterine tissue and simulated fœtal membranes. Professor Watson draws attention to the compressibility of the upper portion of the cervix (Hegar's sign of pregnancy), which was actually present in this particular case. It certainly did look like a pregnant uterus to the bystanders. From a multipara *æt.* 30, now convalescent.

5. *Uterus with a Cricket Ball-sized Submucous Degenerating Myoma of its Anterior Wall.*—The tubes and ovaries had been removed by another surgeon a month before in the vain hope of arresting the menorrhagia from which the patient, a virgin of 28, was suffering.

Minutes of previous meeting were read and confirmed.

It was decided to hold the next meeting in January.

Dr. **Brummitt** then read a paper on "Feeding in Enteric Fever." (See page 514.)

This interesting paper was followed by a long discussion, in which many members took part.

Queensland.

A meeting of the branch was held on Friday, December 6th, at the Central Board of Health rooms, the following members being present: Dr. Taylor (president), Drs. J. Thomson, P. Bancroft, Sutton, Wilton Love, Espic Dods, Robertson, Ham, Hawkes, Wield, Orr, Macevoy, Connolly, Flynn, Macdonald, Halford, Culpin, and Brockway (hon. sec.); visitor, Dr. Salter.

Dr. **Connolly** exhibited a number of gall stones, some of them being very large, removed by him, and related notes of the case; also a uterus removed by him that day for cancer of cervix, by the vaginal route, the chief interest of which lay in the presence within the uterus of an ovum of about a month's growth. The patient was 48, and was believed to have passed the climateric.

The **President** congratulated Dr. P. Bancroft on the recovery from his recent illness, and welcomed him back to the meetings.

Dr. **Culpin** raised the question as to the meeting in consultation of medical men connected with the Friendly Societies' Institute. After some discussion Dr. Culpin tabled a motion for the introduction of a discussion upon the subject at the next meeting.

The report of Council and financial statement for 1901 were read and adopted.

The **President** announced that the following members had been elected officers of the Branch for 1902:—President, Dr. P. Bancroft; vice-presidents, Dr. Hopkins, Dr. Taylor (*ex officio*); curator of library and museum, Dr. Hawkes; treasurer, Dr. Sutton; council, Drs. Marks, Robertson, J. Thomson, Wield; auditors, Drs. Culpin and Espie Dods; secretary, Dr. Brockway.

The secretary received a vote of thanks for his services during the past year.

Drs. Salter (Brisbane), Egan (Warwick), Doyle (Roma), and Berry (Southport), were nominated for membership.

The **President** read an address upon "The Position of the Medical Profession, with Special Relation to the State of Queensland," which was received with acclamation. (See page 507).

Dr. P. Bancroft then took the chair; and after discussion it was resolved that a special meeting be called to discuss the points raised in Dr. Taylor's address.

ANNUAL REPORT OF COUNCIL FOR THE YEAR 1901.

Gentlemen,—Your Council have much pleasure in presenting the report of the year's work.

Ten new members have been elected during the year. There have been two resignations and one death, making an increase of membership of seven, and a total membership of 115.

The November meeting was the last one held in the Pharmaceutical Society's Room, and our thanks are due to The Honourable the Home Secretary, Mr. Foxton, for granting us the free use of the Central Board of Health Room, where we meet to-night for the first time, and to Dr. Ham, the Commissioner of Public Health, for the courteous manner in which he had acceded to our wishes. Your Council feel confident that the greater privacy of this room will add much to the pleasantness of our meetings; the saving in rent also will help considerably towards the much-needed additions to our library, which, for want of funds, has somewhat languished. Your treasurer's statement will show that the response to notices of subscriptions due has been satisfactory; but your secretary wishes again to urge upon you to forward subscriptions early in the year, as much trouble and some expense are thereby saved. You are reminded also of the by-law which disallows voting to members whose subscriptions are in arrear. There has been an average attendance of 15 at the meetings, the most important business of which has been as follows :—

March : The Treatment of the Third Stage of Labour, Dr. Wield.

April : Some notes concerning Panhysterectomy by means of Doyen's Forceps, Dr. Lightoller.

May : Notes of a Case of Streptococcus in Sputum, Dr. J. Thomson ; Notes of a Case of Screw-worm, Dr. Henzell (Mackay)

June : Hemianopsia in relation to the Localization of Cerebral Disease, Dr. J. Lockhart Gibson.

July : Some Reflex Coughs arising outside the Chest, Dr. Robertson ; A simple method of removing Postnasal Polypi, Dr. Francis ; Symptoms in the Upper Respiratory Tract associated with General Disease, Dr. Hawkes.

August : Notes on a Case of Ossification of Muscle, Dr. Wilton Love.

September : Acute Torsion of the Pedicle as the first symptom of Ovarian Tumour, Dr. Hawkes.

October : A Survey of some of the Older and more Recent Methods of Checking Surgical Hæmorrhage, Dr. Lightoller.

November : Clinical and Pathological evening.

Your Council hope that the example of Dr. Henzell in forwarding a paper from Mackay may be followed by other country members, since cases of interest must often be met with by country practitioners, the record of which cannot be otherwise than of benefit to the profession.

In addition to papers, a number of interesting cases, specimens and microscopic preparations have been exhibited, and your council note with gratification that more interest has been taken by members in this most useful part of the function of the meetings than in the previous year. A complete record of these exhibits is to be found in the minute-book, and among them may be specially noted that of a patient suffering from bilharzia, contracted in South Africa; the first case of its kind known in Queensland, and shown by Dr. J. Thomson.

In May an address of welcome was prepared and presented to H.R.H. the Duke of Cornwall and York (Prince of Wales). Dr. Turner was appointed representative of the Branch in England for 1901, and your council look forward to his early return that they may have an account of his experiences.

The question of the proposed alteration in the constitution of the association received the attention of the Branch in June and July, with the result that the suggestions of the New South Wales Branch were supported.

In July a deputation of the Branch waited upon the Secretary for Education with reference to the permission granted an optician to examine the eyes of children attending the State schools. As a consequence of the opposition of the profession, the optician withdrew from his position.

In November a deputation of the branch waited upon the Home Secretary with reference to a new Pharmacy Bill which was before the Upper House, the result of which has been placed before you, and your thanks are especially due to the Hon. Dr. Taylor and the Hon. Dr. Marks for the able manner in which the bill was shorn of its objectionable clauses while in committee.

There have been 11 council meetings with the following record of attendance :—Dr. Taylor, President, 11; Dr. Francis, V.P., 7; Dr. J. Thomson, V.P., 7; Dr. Robertson, 8; Dr. Wilton Love 8; Dr. Sutton, 7; Dr. P. Bancroft (Trea.), 3; Dr. Hopkins 8; Dr. Carvosso, 4, Dr. Brockway (Sec.), 11. During the year two of your members, Dr. P. Bancroft and Dr. Kerr-Scott have suffered from serious illness; your Council is glad to have welcomed the former on his return, and to congratulate him on his recovery, and hope that the latter will soon be with us again. Your thanks are due to Mr. Blake, Registrar of the Pharmaceutical Society for arrangements for our comfort while tenants of the old room; to the editor of the *Australasian Medical Gazette* for printing the reports of our meetings, and to Mr. H. Bolton, the assistant secretary for the able manner in which he has performed his duties.

In conclusion, your Council desire to accord their grateful appreciation to those members, who have exhibited papers during the year, and to those who have enlivened the meetings by the exhibition of cases and specimens, and to express the hope that the future years of the branch may be as interesting and instructive as that which is now brought to a close.

(Signed on behalf of the Council),
W. F. Taylor, President.
Archibald B. Brockway.

OBITUARY.

SIR JAMES AGNEW, K.C.M.G., M.D., M.E.C., Hobart.

We regret to record the death of the Hon. Sir James Wilson Agnew on November 6th, at the age of 87. He had been for 61 years connected with Tasmania. Sir James was born at Ballyclare, North of Ireland, on the 2nd October. 1815, and was educated professionally at London, Paris, and Glasgow. Leaving London in the ship "Willmot," he arrived in Sydney in the year 1839. Spending a few months in that city, the young doctor thought that instead of following his profession he would take up station life. He then proceeded to the western districts of Victoria with a view of settling there permanently. On his way to the Grampian Hills he met for the first time the Hon. Adye Douglas, now President of the Legislative Council, and since then, some 61 years, the closest friendship has existed between the two. The rough station life did not seem to be congenial, and on returning to Port Phillip he found a letter waiting him from the celebrated Arctic explorer, Sir John Franklin, who was then Governor of Tasmania, at that time known as Van Diemen's Land. Sir John wrote offering him the position of private secretary. Sir James took the first sailing vessel leaving for Hobart, and on arrival he learned that the position had been filled. Sir John at once appointed him medical officer at the Cascades Peninsula. From this he was transferred to the General Hospital, Hobart, where he did duty until he entered upon private practice. Sir James first became connected with the Royal Society when it was known as the Tasmanian Society, under the presidency of Sir John Franklin, in the year 1841. His first contribution appears in the *Journal* in 1841, dealing with the "Poison of the Tasmanian Snakes." On the 26th March, 1851, Sir James was elected a member of the council of the Society, a position he filled up to the day of his death. In the year 1861 he was elected hon. secretary to the society, filling that position until the year 1893. He has been a most liberal donor to the Royal Society and to the Museum, presenting works of art to the latter institution, and many valuable books to the Royal Society's library. In the year 1888 he bore the entire cost of a shipment of English salmon ova, amounting to nearly £900, brought out under the personal supervision of the late Chief Inspector of Fisheries of Ireland (Sir Thomas Brady). He was the first chairman of the Tasmanian Museum and Botanical Gardens, also chairman of the trustees of the Public Library of Hobart; both positions he filled up to the time of his decease.

He leaves one daughter and one daughter-in-law, the widow of his late son, Charles Stuart Agnew. Two of his last acts, the day before his death, were to forward a cheque to the Convalescent Home, and at 6 a.m. on Tuesday morning to sign his name to the Royal Society's address which was presented to His Excellency Sir Arthur Elibank Havelock at the swearing-in ceremony which took place the same day. For many years Sir James represented the districts of Hobart, Jordan, and Macquarie in the Legislative Council, and was Premier and Chief Secretary when he finally retired from political life in 1887. In the year 1824 her late Gracious Majesty Queen Victoria was pleased to confer the honour of K.C.M.G. upon him.

The remains were interred in the cemetery at Cornelian Bay. The funeral was attended by representatives of most of the public bodies, in addition to which a large number of citizens in their private capacity paid a last mark of respect to the deceased.

[We are indebted to the proprietor of the *Tasmanian Weekly Mail* for the portrait of Sir James Agnew.]

We regret to record the death of Joseph John Stapleton, M.B., C.M. Edin., M.R.C.S. Eng., of Wallsend, N.S.W., who died suddenly on 12th December, aged 45 years.

Dr. Wm. Crooke, of Fitzroy, Melbourne, died on 10th December, aged 85.

We greatly regret to record the death of Dr. Holthouse, the oldest medical man in Ballarat, Vic., which occurred somewhat suddenly at his residence, Pleasant-street, on the 9th inst. Until the last, though 82 years of age, he was able to attend to his professional duties. The immediate cause of death was failure of the heart's action. He leaves a widow and grown-up family. He was the first President of the Ballarat Medical Society, now a District Branch of the British Medical Association.

We regret to record the sudden death of Dr. Fred. Wm. Elsner, of Moree, N.S.W., on December 13th. Dr. Elsner was a frequent contributor to our columns in past years.

Dr. Walter Tibbitts, of Dubbo, N.S.W., died on the 10th December. He was one of the oldest magistrates of the district.

REVIEW OF CURRENT MEDICAL LITERATURE.

SURGERY.

Ligature of the Innominate Artery for Aneurism of the Subclavian.

B. Farquhar Curtis (*Annals of Surgery*, November, 1901) describes and figures a case of successful ligature of the innominate artery by a modification of Milton's method of exposing the anterior mediastinum. Skin incision from larynx to mid-sternum; periosteum and muscle attachments stripped down from the back of the manubrium sterni, and the manubrium divided vertically with a saw; each half divided horizontally with a chisel at level of upper border of the second cartilage and turned outwards, giving nearly 2in. of space. The view of the vessels was perfect, and the dissection easy. The pleura and the innominate vein were easily pushed aside unharmed; the innominate was isolated, and a double heavy chromicised catgut ligature was passed around it by means of a strong pedicle needle. While tying, the walls of the vessel were folded in with a blunt instrument; the ligatures were not tied sufficiently tight to cut through the internal coat. The divided bone was re-united with two silver wire sutures, and the wound closed without drainage, except at the lower angle between the skin and the sternum, where a small gauze drain was inserted. The temperature ranged from 102° to 104° for two days, and a leucocytosis of 19800 followed the operation (6200 before the operation). No cerebral symptoms; wound healed well; patient kept in bed for a month. A small abcess formed at upper angle of scar six weeks after the operation; slight pulsation returned in the aneurism and in the right radial artery in four days; subsequently the carotid and subclavian were ligatured. The patient was shown 10½ months after the operation in good health, with no trace of the aneurism.

Antiseptic versus Aseptic Surgery.

T. B. Grimsdale (the *Liverpool Medico-Chirurgical Journal*, September, 1901) briefly contrasts the results he obtained in 20 consecutive abdominal sections, 10 of which were done with antiseptic precautions and 10 with strictly aseptic methods. He publishes composite charts of each 10, and, although all the patients in each series recovered, the result was slightly in favour of the aseptic cases, as in them neither the temperature nor the pulse rose quite so high soon after the operation. For instance, in the antiseptic series the pulse was over 100 on 47 occasions, and the temperature on 13 occasions; while in the aseptic series the pulse only rose above 100 on 14 occasions, and the temperature never rose above 100° in any case. Pain was less in the aseptic cases, only two of the 10 requiring morphia, while in the antiseptic all the cases had it.

Suppurative Pericarditis following Appendicitis. Recovery after incision and drainage of pericardium.

Arthur Howard Mann, jun., of Baltimore (*Annals of Surgery*, November, 1901,), records a case of the above in a female child of 12. The earliest symptoms were those of appendicitis:—Abdominal pain, nausea, and vomiting; temperature 103·6°, pulse 120. A mass developed in right iliac fossa, and the child was taken to an infirmary with a view to operation. The right wrist and left knee and ankle became swollen and painful, resembling acute rheumatism. The abdominal symptoms disappeared after a few days, but the arthritic symptoms

The Late SIR JAMES AGNEW, K.C.M.G., M.D., M.E.C., Hobart.

continued several weeks, in spite of salicylic acid. A mitral murmur developed, and a few days later there was a great increase in the area of cardiac dulness, with temperature 104·2°, pulse 150, and respiration 46. An exploratory needle passed through the fifth interspace came in contact with the heart, and only a few drops of blood were obtained. It was then passed through the fourth interspace, 2in. to the left of the border of sternum, and two drachms of purulent fluid obtained. The needle was allowed to remain as a guide, and an incision 4½in. long, parallel to the border of sternum and 2in. to the left, was made down to the ribs. Two inches of the fourth rib were resected, the internal mammary was ligated, and the pericardium then opened; a quantity of purulent fluid escaped. The pleura was not seen, being pushed out of the way to the left; the fluid was nearly all posterior to the heart. The patient was rolled over to the left side, and about 800 c.c. of pus ran out. The pericardium was freely opened, and stitched to the edges of the wound, and a long strip of sterilised gauze was put into the sac below and behind the heart; a large sterile dressing applied. The next day there was no distress in breathing, but the temperature and pulse continued high. The dressing was removed on the second day, and when the gauze drain was removed a quantity of pus escaped; the gauze stopping, rather than assisting, the drainage. Two medium-sized rubber tubes were put into the pericardial sac, and were kept in position by fixing them to the skin with a safety pin. A free discharge followed, the temperature and pulse dropped to 99·2° and 120 respectively, and the patient commenced to improve. The tubes were kept in 10 days, the wound was healed and child allowed up in three weeks. The mitral murmur remained, but otherwise she was in good health a year after the operation. Diplococci were found in fresh-stained specimens, and pure cultures of the pneumococcus were obtained. The author thinks it possible that a suppurative pericarditis, due to the pneumococcus, may run a more favourable course, under proper treatment, than if due to the pyogenic organisms or a mixed infection.

Wound of External Iliac Artery treated by Suture.

J. Hogarth Pringle (the *Scottish Medical and Surgical Journal*, October, 1901,) reports a case of wound of the left external iliac artery—from a stab with a penknife—just above Poupart's ligament. A large quantity of blood escaped externally, and the iliac fossa was filled with clot. The external wound was enlarged, the blood clot scooped out, and a wound ¼in. long was found in the antero-internal aspect of the vessel, about ¼in. above the origin of the deep circumflex iliac, which was tied. The deep epigastric could not be found; the vein was uninjured. The wound in the artery was stitched with catgut, bleeding being controlled by compressing the abdominal aorta. The wound healed aseptically, and when the patient was seen six months afterwards, his leg was "as strong as ever it was," and there was no sign of any yielding of the arterial coats.

Splenectomy.

J. Bland-Sutton ("Clinical Society's Transactions," vol. xxxiv., 1901) records a case in which he performed splenectomy for a wandering spleen. The patient was a married woman, *æt.* 34, the mother of seven children, and at the time of operation was two months' pregnant. The spleen presented a very moveable abdominal swelling. When lying in bed, nothing abnormal was obvious; but on sitting up in bed, or standing, an elliptical mass appeared in the left lumbar and umbilical regions, and gradually descended to the left iliac fossa; this body exhibited the outline of an enlarged spleen. The dragging of the viscus on its pedicle produced a good deal of pain, and interfered so much with the patient's home duties that she was anxious for relief. Repeated observations of the blood showed that the leucocytes were not in excess. The operation was performed through an incision in the left linea semi-lunaris, May 28th, 1900. The spleen, three times its normal size, was found in the left iliac fossa, swinging at the end of a thin, elongated pedicle, and rotated through half a circle. The vessels were secured by thin silk ligatures close up to the spleen—five in all were required—and the organ cut away. The pancreas was not involved in the pedicle; no splenicula could be found; the abdominal wall was closed in three layers. Convalescence was uneventful and rapid. The patient was delivered of her baby (December, 1900) and in January, 1901, reported herself in excellent health. Bland-Sutton now has seven female patients living from whom he has excised the spleen; they all report themselves from time to time in good health, and offer no indication that they are spleenless. A short reference is appended to the paper of the other six cases, which have been published in the *Lancet* and other publications, and four of the cases had been done over five years at the time of last report.

Impressions about Chloroform and Ether.

Sir William M. Banks (the *Liverpool Medico-Chirurgical Journal*, September, 1901) in a long paper introducing a discussion at the Liverpool Medical Institution, contributes his impressions about chloroform and ether from his large experience—comprising many thousands of cases—both as anæsthetist and operator. He justifies the discussion by the fact that during the last 10 years the deaths from anæsthetics in England and Wales have doubled. He thinks the principle of "plenty of air and plenty of anæsthetic" the fundamental one underlying all others in the giving of anæsthetics. In discussing the reports of physical experiments and statistical commissions, Sir William thinks no practical good has come out of any of them, as there can be no possible comparison between a healthy dog or cat and a diseased human being. Speaking of the report of the British Medical Association on anæsthetics, he quotes from the analysis of the report by Mr. Eastes, as follows:—"The most important conclusion is the last—that ***by far the most important factor in the administration of anæsthetics is the experience of the administrator***, and that in many cases the anæsthetisation is of such importance and gravity that it is absolutely essential that an anæsthetist of large experience should conduct the administration." Sir William thinks, that as no two people are alike, no uniform treatment can be applied all round. He agrees with the estimate of the clinical statisticians, that chloroform is nine times more dangerous than ether. In order to impress upon students the differences between the dangers of chloroform and ether, he speaks of the "White Man" and the "Blue Man." The White Man is being poisoned with chloroform, and the Blue Man with ether. Sir William thinks that the operating surgeon should always exercise a watchful supervision over the anæsthetisation, and commits himself to the following opinion, "that the majority of deaths from anæsthetics are preventable, and are due either to want of knowledge or want of care on the part of the anæsthetist." He admits having had two deaths himself, both from chloroform. Imperfect aëration, through the tongue being allowed to fall back, he looks upon as the chief danger in chloroform anæsthesia; and mucus and fluids in the larynx as the chief danger in ether anæsthesia. A good "gag" and a pair of tongue forceps are indispensable for the anæsthetist. He also gives a warning against pressing the anæsthetic when the patient is struggling. As to methods of revival when danger shows itself, Sir William has no faith in the galvanic battery—which is generally out of order when required—but recommends inversion, drawing forth the tongue, and artificial respiration. He has found brisk friction of the lips and nose (facetiously named by the students "dry shave") a good means of reviving a fainting patient. The administration of a stimulant—brandy, almost neat—just before the commencement of the anæsthetic is recommended. As regards position, Sir William thinks the left lateral recumbent the safest, and instances the rarity of death from chloroform in child-birth as proof.

A Case of Ureteral Calculus, Simulating Vesical Calculus.

Francis J. Steward, M.S. (*Clinical Society's Transactions*, vol. xxxiv., 1901), reports the above. The patient, a male, *æt.* 24, was admitted to Guy's Hospital, August 9th, 1900. On several occasions during the previous three years he had had attacks of painful micturition which passed off in a few days. The attacks were accompanied by increased frequency of micturition, and by the passage of a small quantity of blood. On admission the urine was acid, S. G. 1025, was quite red from blood, and also contained some pus. Micturition was accompanied by severe pain in the perineum and also at the end of the penis. No stone could be felt with a sound, and two radiograms gave negative results. Feeling sure that there must be either a growth or an encysted calculus, Mr. Steward opened the bladder supra-pubically on August 24th. The viscus was inflated with filtered air (12 oz.). On opening the bladder and inserting a finger nothing was found in the bladder, but a calculus could be felt in the right ureter about two inches above the orifice. An attempt was made to work the calculus down into the bladder, but failed, so the wound in the bladder was closed with a fine continuous silk suture. The skin incision was also closed with the exception of half an inch at the bottom for drainage. A catheter was kept in the bladder for three days. No leakage took place. On September 4th an incision five inches long was made over the outer edge of the right rectus in its lower part. The muscle was drawn inwards and the posterior layer of the sheath divided, and the peritoneum opened. The calculus was easily found, and an attempt again made to move it along the ureter, upwards this time; but it could not be pushed beyond a point just above the iliac artery. The intestines having been packed away with sterile gauze, the peritoneum was incised a little internal to, and then stripped off the surface of, the ureter. A small longitudinal incision was made into the ureter and the calculus extracted. About ʒi. of urine escaped, but was quickly sponged away. The ureter was closed with a fine continuous suture of No. O. Chinese twist, passed only through the outer coats. The peritoneum was then closed over the ureter in the same way. A small gauze drain was passed down to the site of the operation in case of leakage—but no leakage occurred. The blood in the urine gradually diminished till on the fifth day it had ceased altogether. There was no return of the pain, and when the patient was seen four months after the operation, was in good health. The calculus weighed 9 grains, and was about ½ inch long by a third of an inch in diameter

THERAPEUTICS.

Nitro-glycerine in the Treatment of Epilepsy.

Pellegrini (*Semaine Medical*, October, 1901) gives the results of his observations on the use of nitroglycerine in 15 cases of epilepsy at the Lunatic Asylum at Girifalco, Italy. He used the 1 per cent. alcoholic solution in doses of two to ten drops in 250 grm. of water twice daily. To render the action of the drug more effective, he administered to his patients four to seven grammes of bromide of potassium daily for three months. For the next three months the patients were left without any treatment, and then for the next three months the nitro-glycerine was given. Under the influence of the drug, which was well borne and gave no symptoms of constitutional disturbance, the number of attacks notably diminished in 14 out of 15 cases; in six cases there was a marked diminution in the agitation which preceded, accompanied, or followed the convulsion. The author, without wishing to substitute nitro-glycerine for bromide, considers that the alternate use of these drugs would be advantageous in preventing the untoward results which often follow the prolonged administration of bromide, such as the enfeeblement of vision, hearing, and general sensibility, as well as loss of memory and mental deterioration.

The Dangers of Thyroid Medication.

Carriere (*Le Nord Medical*, November, 1901) refers to the fact that Lancereaux, Potain, Huchard, and others have drawn attention to the dangers which have arisen during thyroid medication unless the patients were under careful medical supervision. The author records several cases illustrative of these ill-effects. In one case a woman had treated herself for obesity with thyroidine for a month, when she began to present alarming symptoms. Carriere found her in a condition of acute asystole, with marked cardiac dilation and irregularity, œdema of lungs, etc.; she completely recovered. Other cases exhibited repeated attacks of syncope, false angina pectoris, painful palpitations, etc. The author concludes that thyroid medication should be most carefully supervised by the physician, that no person should take the drug except on the advice of a physician, and that the sale of the remedy should only be permitted on a doctor's order.

Treatment of the Febrile Stage of Gastro-Intestinal Disease in Children.

Hollopeter (*International Medical Magazine*, July, 1901) writing on this subject expresses the view that we must use such drugs as will act as germicides, and reduce the fever of fermentation to the lowest point. The successful treatment of this condition can be secured by hydrotherapy, intestinal antisepsis, and rest. The first step in the treatment is to empty the stomach, and then wash out the bowel with a warm alkaline solution—½oz. of bicarbonate of soda to a quart of tepid water. The alkaline irrigation neutralises the acid secretion of the intestinal canal, and acts as a sedative to the tenesmus which invariably follows an acid discharge, or fermentative diarrhœa. After the irrigation, the author suggests the administration of small doses of calomel, supplemented by a dose of castor oil. Bathing of children in this condition, with much intestinal peristalsis, requires much care. After an initial bath at 95° for five to eight minutes, gradually cooled to 90°, the child should be put to bed, under light bedclothes, and the temperature controlled by ice bags to head and under the arms. As regards feeding, all milk food should be at once stopped, and only albumen water (white of one egg to a pint of water) should be given in doses of two to four ounces every two to four hours, according to age and circumstances; toast water and gum water may also be given. The author condemns the use of beef extracts or beef juice as affording a medium for the re-cultivation of intestinal bacteria and the re-establishment of the acute symptoms, generally in a most violent form. In children much debilitated by frequent intestinal action, in whom the digestion and assimilation are almost lost, the functional activity of the kidneys is also in abeyance. To stimulate this, the subcutaneous injection of normal saline solution is often of great advantage, and is frequently the commencement of the return of the child to normal health. Not until digestion has been regained and the peristalsis has subsided, should any increase in the nourishment be attempted.

Adrenalin.

The crystalline principle of the supra-renal gland, is rapidly supplanting the aqueous extract of the gland. It is prepared as a 1·1000 solution, and the addition of a small quantity of chloretone keeps it sterile indefinitely. The 1-1000 solution may be used in acute coryza, hay fever, epistaxis, acute inflammation of the fauces, and to secure a bloodless field in the operations in the nose. A much weaker solution—1 in 5000, or even 1 in 10,000—is sometimes sufficient. The strong solution may be applied with great relief in acute and sub-acute laryngitis, and it is suggested that vocalists suffering from congested cords may be enabled, by this remedy, to use their voices for two or three hours with comparative ease.

Benedict (*Therapeutic Gazette*, October, 1901), considering the contractile effect upon the arterioles of supra-renal extract, has been investigating its value in treatment of vaso-motor debility and lowered arterial tension. He considers that even for acute surgical shock (vaso-motor paralysis), alcohol being discredited, adrenalin may supersede minute hypodermic doses of atropin; when heart disease co-exists with arterial depression, it acts better than digitalis or strophanthus. In a case of gastric ulcer, manifested by hæmatemesis and melæna, when neither bismuth nor hydrogen peroxide could be retained, six doses of adrenalin ¼ mg. by the mouth arrested hemorrhage. A case is noticed by Bloch (*Medical Record*, July, 1901), where insufflation of too much powdered adrenal extract to the nares, prior to a surgical operation, caused painful œdema of pharynx and tonsillar-ulcers. Reynolds (*American Medicine*, July, 1901) reports that adrenal extract is a prompt hæmostatic to mucous surfaces, that its effect lasts four hours, that it will relieve ciliary pain, reduce ocular tension, and clear up interstitial keratitis if of traumatic origin. Sprayed into the nares it will relieve congestive rhinitis, rendering operation almost bloodless, without predisposing to secondary hæmorrhage.

Treatment of Syphilitic Sciatica.

Mendel (*Munch. Med. Wochen*, July, 1901) points out that syphilis is one of the causes of sciatica. He published the records of three cases in which the diagnosis was made not only on the history of the patient and the objective signs, but also by the brilliant therapeutic result secured by anti-syphilitic treatment. This consisted in injections of salicylate of mercury, which produced an almost immediate cessation of pain. Clinically, syphilitic sciatica has no characteristic features; the nocturnal exacerbations are not peculiar to it, and the diagnosis can only be established by the co-existence of syphilitic lesions, and by the effects of the injection of salicylate of mercury. This will have no effect on non-syphilitic sciatica, but will produce an immediate relief of pain in the specific disease; potassium iodide, even if administered for a long time, will have no effect. Mercurial inunctions are also less active than injections of the salicylate, and these are also to be preferred, not only in cases of acute pain or severe lesion, but also where permeability of the skin to mercury is diminished by reason of the disease or by age.

DISEASES OF EAR, NOSE, AND THROAT.

Indications for the Mastoid Operation in Acute Mastoid Suppuration.

Wendell C. Phillips (*Post Graduate*, August, 1901), points out that acute mastoiditis is a common sequela of influenza. In all grippe cases there is present a large amount of infectious material in the nose and nasopharynx. The characteristic cocci of this infection are the strepto-cocci, staphylococci, and pneumococci. In these cases blowing of the nose may carry the infection into the middle ear, and set up acute middle ear suppuration—a suppuration which is peculiarly virulent, and rapidly destructive to all tissue it comes in contact with. The important symptoms are (1) tenderness over mastoid process on the level of the antrum; (2) bulging of Shapnell's membrane and the superior posterior wall of the canal; (3) the presence of streptococci or staphylococci in the pus escaping from the middle ear. Phillips recommends early incision of the drum membrane, and the application of the ice coil, or local blood-letting for 24 or 36 hours. If, at the end of this time, there is not a permanent remission of symptoms, operation should not be delayed. He also thinks that where the infective cocci are found in the discharge, no amount of palliative treatment will have any effect on the final result.

The Functions of the Tonsils.

R. Matheny (*Medical Record*, September, 1901) deprecates the indiscriminate removal of tonsils. He points out that the throat is the great open gateway to the body, and through it pass not only all the essentials of life's sustenance, but most of the enemies of health, and the germs of disease and death. Nature has made a heroic effort to guard this vulnerable point—an effort which is especially required in early life. She has placed four well-manned forts about this entrance in the form of the four tonsils, and has also thrown out far-reaching columns in the form of chains of lymph nodules, thus completely encircling this entrance-way. It does not follow that because a tonsil is hypertrophied it is dangerously pathological. The fact that a child, who has had one or two attacks of tonsillitis has slightly prominent tonsils, is not necessarily an indication for their removal. The tonsillitis may have been the lesser of two evils, the tonsils localising and bearing the brunt of an infection which otherwise might have become systemic. Conditions which justify excision are:—(1) A simple hypertrophy of the tonsils, which causes them to occupy so much of the pharyngeal space as to prevent the entrance of sufficient air for breathing; this would have to be considerable so as to cause the pharyngeal space to be of less calibre than the trachea; (2) cases where the enlarged tonsils, by pressure or traction on the orifices of the Eustachian tube, interfere with its function; (3) tonsils whose crypts have become filled with offensive caseous matter; (4) enlarged tonsils that have developed a "habit" of tonsillitis or quinsy; (5) when the enlarged tonsils interfere with voice production, or the production of pure tones in voice culture.

The Anæsthetic for the Adenoid Operation.

W. J. McCardie (*Treatment*, October, 1901) in an article on "The Choice of an Anæsthetic," devotes some attention to the question of the proper anæsthetic for the adenoid operation. Chloroform he condemns as altogether too dangerous, especially when the tonsils are enlarged. He recommends ether for even the youngest children, at first "fuddling" them, so to speak, with a mixture of ether (two parts) and chloroform (one part), and then giving ether from a drop-bottle in the same way as chloroform, only more freely.

Hopkins (*Boston Medical and Surgical Journal*, September, 1901), states that chloroform is particularly dangerous when administered to children who suffer from adenoids. He thinks the short duration of nitrous oxide anæsthesia renders it of doubtful utility in operations on the nose and throat, and also recommends ether. Many operators, however, find that they can easily remove adenoids under nitrous oxide.

Treatment of Tuberculous Laryngitis.

Charles Grayson (*Brooklyn Medical Journal*, November, 1901) recommends intra-tracheal injections of menthol, guaiacol, or eucalyptol in olive oil. These make the sputum thinner and easier of expectoration, and thus lessen the frequency and violence of the cough. In lactic acid (50 per cent. solution applied twice a day) he believes we have a remedy that will cure any case that may reasonably be regarded as curable. He emphasises the importance of cleansing the larynx every few hours, removing from it the mass of broncho-pulmonary sputum mingled with the débris of local necrosis and purulent discharge. If this cleansing can be carried out effectually, he thinks many cases, which now defy our efforts, could be brought under early control and cured. An alkaline spray with, if necessary, the direct application of peroxide of hydrogen by a brush, will effect this cleansing. For pain he recommends orthoform, especially an oily solution, containing 15 grains orthoform and 10 grains iodoform to the ounce.

Otitis Media and Pneumonia.

T. Wilson (*Birmingham Medical Review*, July, 1901) publishes a number of cases showing clearly how some of the gravest symptoms arising during pneumonia are due to acute middle ear suppuration. In pneumonia, otitis media is not infrequently quite latent. There may be no noticeable deafness, pain, headache, or discharge from the ears, and yet the patient may be dying from retention of septic pus in the tympanic cavity. The otitis is generally secondary to the pneumonia. The pneumococcus brought into the pharynx by coughing, passes through the Eustachian tube and causes suppuration. This shows the need for antiseptic treatment of the throat in pneumonia, especially in children. Although there may be no pain, deafness, or discharge, there are often symptoms suggestive of an incipient pyæmic state. There may be slight pain and tenderness in the limbs, or a little swelling of a joint. Diarrhœa about the fifth or sixth day of pneumonia, is also suggestive of some complications threatening pneumonia; the appearance of small boils is another valuable symptom. A watch must always be kept for cerebral signs, pointing to meningeal irritation. The writer urges that the ears should be examined in every case of severe acute pneumonia in children and young people, for these cases are very easily overlooked till too late.

Six Cases of Excision of the Larynx.

F. Harvey (*Lancet*, September) gives an interesting account of six cases of complete excision of the larynx done by himself. All were cases of malignant disease. Two cases are still alive, one seven years and the other fourteen months after the operation; one lived for a year, and died from pneumonia; another for a year and a half, dying from recurrence; the other two died a week and three months after the operation respectively, cause of death unknown. He emphasises the two most important points in the operation as being (1) the keeping blood out of the lungs, and (2) the accurate suturing of the pharynx and œsophagus.

CORRESPONDENCE.

VICTORIA.

(FROM OUR SPECIAL CORRESPONDENT.)

One of the principal anxieties in medical circles in this State is the continuous increase in the support given to the present lodge system. The latest innovation is the introduction of ladies' lodges which have in some places been taken on by local practitioners at reduced rates.

Juvenile lodges have been in existence for some time, and have also been taken up at small remuneration; and this principle has thus introduced a feeling of uneasiness amongst medical practitioners that their already small fees have a great likelihood of being much smaller in the near future.

Some time back a resolution was passed by the Medical Defence Association of Victoria, that no Ladies' Lodges should be accepted on cheaper terms than ordinary lodges, but unfortunately many medical men had already taken them on at reduced fees.

This was felt to be wrong, for young women, as a rule, require more attention during early life, than young men. Why, therefore, should they be accepted at a lower rate?

At Port Melbourne the local doctors refused to take on any lodges at a reduced rate, and deserve every congratulation from their profession for their plucky behaviour.

At the present time the Williamstown practitioners have sent out a notice that they intend to adopt one uniform charge for all the lodges with which they are connected. This includes Ladies' Lodges, Juvenile Lodges, Rechabites, and Sons and Daughters of Temperance. The ladies' and juveniles have been attended for some time at reduced fees, and the single members of the Rechabites and Sons and Daughters of Temperance have also been attended for half the ordinary fees.

Some of the other lodges in the town have complained about this as giving an unfair advantage to the abovementioned lodges, and so it was decided by the whole of the practitioners, at Williamstown, to adopt a uniform charge to every lodge. There is to be a meeting of delegates of the lodges and the doctors, to talk the matter over, and already letters have been written in the local papers threatening to retaliate by starting a Medical Institute, and to seek new medical men to run their institute in opposition to the local men. This matter is in abeyance for the present, but will probably be settled shortly.

A case of complete fracture of the kidney was treated recently at the Alfred Hospital The patient was a boy of twelve, and the fracture was brought about by his falling over a chair. An operation disclosed the kidney completely divided into two sections, the vessels and ureter being attached to the upper segment, both segments united, and the boy made an uninterrupted recovery.

Mr. J. T. Rudall, F.R.C.S., in-patient surgeon to the Alfred Hospital, has retired after many years service, and has been appointed an honorary consulting surgeon. Mr. Hamilton Russell, F.R.C.S, has been appointed to the position rendered vacant by Mr. Rudall's retirement.

A public meeting to bring about the formation of a society for the "Prevention and Cure of Tuberculosis," was held in the Town Hall, Melbourne, with the Governor-General in the chair, on Monday evening, 2nd inst. The meeting was full and enthusiastic, and satisfactory resolutions were passed.

Another society having the same object in view, is that which has the Echuca Sanatorium in charge. As usual, it is in need of money, and lately the public have generously responded directly by contributions, and indirectly through the media of garden parties and other little functions. The matter of the cure of habitual drunkards has lately been mentioned in the Parliament of this State, and it is understood that two proposals are to be allowed a preliminary trial, one at Pentridge, where the patients are to be cured by good diet, baths, amusements, etc., without any drugs. The other is under the direction of a well-known Wesleyan clergyman who relies on chloride of gold.

The plans of the additional wards to the Melbourne Hospital, are objected to by the head authorities, on the grounds that they involve the further overcrowding of an already crowded allotment.

It is with shame that I report the Fever Hospital, at Kew, on which so many thousands of public money have been expended, to be still lying idle on account of the absence of funds wherewith to purchase the necessary furniture. Had the people in charge a spark of energetic business ability this hospital would by now have behind it some years of valuable service.

The reduction of the fees charged by the Melbourne Hospital to the students has been greatly appreciated, thus quite removing any soreness there may have been among them.

The Victorian Trained Nurses' Association is now in active work with a roll of 250 members, and reciprocity has been established with the Australian Trained Nurses' Association. The first general meeting will be held in a few days.

Melbourne,
December 3rd, 1901.

MEDICAL MEN AND INSURANCE SOCIETIES.

(*To the Editor of the Australasian Medical Gazette.*)

Dear Sir,—I had a similar experience in connection with the Australasian Temperance and General Mutual Life Assurance Society to the one Dr. Moule mentions.

When I first started practice here, a representative waited upon me and asked if I would undertake the duties of examiner, to replace another medical man. I consented, and then the cloven foot appeared. It was usual, so said this representative, for medical men to insure themselves. I informed him that I had insured cases for the A.M.P. and other large societies, but I had never been asked to do so before, and that I considered it a gross insult for any society to attempt to bribe me. I thought, perhaps, the representative was acting on his own responsibility, so I wrote to the resident secretary, who informed me that such was the custom of the society, that they only dealt with medical men who gave them a *quid pro quo*. Such conduct is reprehensible in the extreme, and I think that any medical man approached in such a manner will be wise to give the society the "cold shoulder."

Yours faithfully,
J. H. G. DRUMMOND.

Semaphore, November 14th, 1901.

THE BATTLE OF THE CLUBS.

(*To the Editor of the Australasian Medical Gazette.*)

DEAR SIR,—It is satisfactory to note from the October number of the *Gazette* of the unanimity among the medical practitioners in Inverell. In this town matters are not so satisfactory. There are two general practitioners besides myself. The Lodge rates are £1 per member per annum, *medicines included*. We are still further handicapped by having a resident (so-called) hospital surgeon in charge of the hospital engaging in private practice. He gets £300 a year, with free house, etc., and is allowed to see private patients at his own house, and also to visit private patients outside at their own homes.

I am, yours, etc.
GEO LAPRAIK, M.D., C.M.

Thames, N.Z.,
November, 1901.

THE BATTLE OF THE CLUBS.

THE following circular has been issued by the Medical Defence Union of Western Australia:

TO THE MEDICAL PROFESSION OF AUSTRALASIA.

Facts bearing on the establishment of a Medical Institute by a section of the Friendly Societies of Fremantle, Western Australia.

1. This Institute is unnecessary, inasmuch as the medical attendance is acknowledged to be of a high quality.

2. The Lodge rates are actually less than in Victoria, New South Wales, and New Zealand, where living is much cheaper, and relatively to the cost of living are absurdly low, *e.g.* :—Adults, 17s. 6d. to the doctor, 5s. to the chemist, women at half rates, children at quarter rates.

3. The movement has its origin in a recent "levelling up" by one of the doctors from 15s. to 17s. 6d. per annum; women and children in proportion.

Much irritation has also been caused by the good feeling existing among the medical men practising here, and the consequent inability of the clubs to "play off," as heretofore, one doctor against another. A firm refusal has repeatedly been given to various demands made by the lodges, that certain extra privileges should be granted them; a refusal quite justified by the already inadequate payment for medical service, *e.g.* :—

(*a*) That accouchement fees should be £2 2s. (in one society 21s. only of this amount was guaranteed by the lodge, and then not insisted on—a penalty without a compensating benefit. The raising of this fee to £3 3s. has given bitter offence).

(*b*) That miscarriage, actual or threatened, should be included in ordinary lodge services (actually made by one lodge).

(*c*) That fines amounting in some instances to £3 should be inflicted on the doctor failing to attend the wife of a club patient in her confinement before all other patients. This is actually present in the agreement form of one club, though it has never yet been enforced.

(*d*) That all operations, major and minor, gynæcological examinations, and treatment of uterine complaints, administration of anæsthetics, and consultation with a second doctor, should be part of the ordinary duties of a lodge surgeon. This, we hear, is to be so with the Fremantle Medical Institute, as are accouchements at guinea fees paid by the Institute.

(*e*) That club patients should be attended at all times, and that there be no restrictions as to time of sending in messages. This has not actually been demanded, but has been frequently mentioned in conversation.

(*f*) Examination of wives is also a sore point.

4. The mainspring of the movement is the A.N.A. Society, which, as doctors know, under a flimsy pretence of patriotism and philanthropy, has always taken the lead in ruthlessly sweating and debasing our profession. We have been warned recently from the East that this society has been "fathering" an endeavour to procure for this proposed Institute a doctor, hoping thus "to bring these Fremantle doctors to their bearings."

The persistent attempts by this society to procure cheap medical attendance is a terrible menace to the future of the profession, and should be as persistently resisted by us.

Facts for the consideration of Intending Applicants.

1. Population of Fremantle and neighbourhood 20,000, mainly working class.

2. Number of doctors, 14, all young, steady, and undeniably fulfilling their part of the club contracts.

3. Conditions of work—very arduous, the town being very scattered and the roads bad. The usual morning round covers about ten miles, and as a consequence only about six or eight patients can be seen from 11 a.m. to 1.30 p.m.

4. Cost of living is exactly double that of Victoria or New South Wales, and more than double that of New Zealand.

Wages average 20 per cent. higher. Private fees are 7s. 6d. to 10s. 6d.; lodge fees, 17s. 6d. to doctor, 5s. to chemist, with no wage limit.

Not one doctor in Fremantle lives under £800 per annum, employing a groom and one maid - hardly better than a decent mechanic.

It is evident that the £600 offered by way of salary is inadequate. Extras (*vide* advt.) *may* bring the earnings of the Institute's doctor up to £900 (especially the accouchment fees of one guinea, which are held out as a great attraction). A married man must plainly lose money on his first year after paying passage money for his wife and family.

5. The Institute is to start with 1,000 members, but as Fremantle is club-ridden, and canvassing is sure to be pushed, his work is likely to increase rapidly. His club masters may be expected to have little sympathy for him in their keen desire for economy, and are unlikely to rapidly raise his salary. He will therefore be practically a "white slave."

6. No self-respecting man or able man will deliberately place himself in the position of a "blackleg," face the professional and social ostracism which will inevitably be his portion, and lend himself to the sweating of his own profession.

7. It is exceedingly doubtful whether the proposed Fremantle Friendly Societies' Medical Institute will meet with much success.

Many of the societies here have already declared against it, others are wavering. Three or four men supply the motive force, the mass of the club members have hitherto been purposely kept in ignorance, and when a plebiscite is taken will in many cases vote "*No.*"

In addition, the profession here will fight them on lines which in other places have been found useful, and with good chance of success. Fremantle is absolutely the worst town in Australia which the clubs could have chosen to force on the profession a quarrel of this kind.

We are convinced that a consideration of the above facts will carry conviction of the justice of our position, and we therefore rely on the support of every doctor in Australasia.

The Junee branch of the Australian Natives Association has collapsed, owing to its being unable to obtain the services of either of the doctors in Junee, both of whom are members of the British Medical Association.

The Inverell Lodge.

Dr. Kinross, of Inverell has furnished us with the following statement of the position of lodge matters in that town at present:—"The lodge called for applications by advertisements in *Herald* and *Telegraph* up to 28th October. We advertised also, asking intending applicants to write to us first. The Brisbane Branch also advertised warning men. A man was in the field ready to take the lodge, but did not know full particulars. Influence from Sydney leading practitioners being brought to bear he withdrew. Several men wrote from distant parts of the State for information, and I am proud to say on the situation being put to them they loyally dropped the idea of applying, and sent us most encouraging and sympathetic replies. All the branches of the British Medical Association throughout the States were in the meantime pouring in sympathetic letters, and promising to support us. October 28th arrived, and no applications at all were received by the lodge. On December 3rd our time was up. We have now been out three days, and the lodge has no medical officers. The union we formed here decided to open a list on similar lines to the Sydney and Suburban Provident Medical Association, many of the members promising to join our list, but the lodge said if they did join they would lose their benefits, as they, the lodge, would refuse our certificates, &c. This frightened the majority of them, and so they sat on the fence and waited developments. Now they are cringing to get on our lists. We are only putting a few of these on at present, some dozen or so of men who decided to stick to us at any cost. The rest we have not yet decided what we will do with, whether to go on with the opposition list or to wait developments. In the meantime they are going to pay us private fees, as there is no doctor. That is, we attend them, send in the bill to the individual, and the lodge pays.

PUBLIC HEALTH.

Victoria.

Vital Statistics.—Of 540 deaths registered in Melbourne during the month of October, 17 were due to whooping cough, 3 to diphtheria, 2 to enteric fever, 50 to cancer, 62 to phthisis, 20 to apoplexy, 15 to bronchitis, and 37 to pneumonia.

Wine Adulteration.—Under the terms of the Wine Adulteration Act it is provided that spirit used for the fortification of wines must be at least six months old. The Board of Public Health, at the instance of a deputation of wine growers, passed a resolution that the use of spirit for fortifying wine be allowed irrespective of its age, provided a chemical analysis of the spirit, conducted under the board's direction, proves its quality.

Infectious Diseases Hospital, Yarra Bend.—Although the laundry for the Infectious Diseases Hospital at Yarra Bend has not yet been built, the committee has asked the Board of Public Health to approve of the buildings completed. When this approval has been secured it will be possible for the hospital to be opened shortly after the State Treasurer announces the extent of Government aid that will be given.

Outbreak of Typhoid at Bendigo.—Dr. J. M. Eddie, the health officer, in his report to the City Council at its meeting last month called attention to a serious outbreak of typhoid fever in Thistle Street south. He (Dr. Eddie) was satisfied that the outbreak was due to drinking impure water. He had communicated with the department with a view to having the water inspected. He had also taken the necessary steps to have the house, clothing, etc., thoroughly disinfected, and every precaution would be taken before the building was again occupied.

Ballarat Asylum Drainage.—Dr. M'Creery, Chief Inspector of Lunatic Asylums, and Mr. Marsden, of the Public Works Department, visited Ballarat on Thursday to make inspection and inquiry in the matter of the pollution of Lake Wendouree by the drainage from the local lunatic asylum. Dr. M'Creery admitted that there was cause for complaint, as scum nearly half an inch thick was found on the surface of the water at the point where drainage entered the lake from the asylum. The introduction of a septic or scum tank was suggested, and Dr. M'Creery promised to give any scheme submitted to him by the City Council favourable consideration.

Powers of Health Officers.—A short time ago the health officer of the shire, Dr. O'Brien, of Warrnambool, called the attention of the council to the restricted powers of health officers in dealing with the closing of State Schools in the event of an outbreak of infectious disease. The council was unanimously of opinion that health officers should be vested with authority to close any State School in their district on the occurrence of an epidemic without reference to any public body, and the secretary was instructed to obtain definite information from the Board of Health as to the extent of the powers of health officers under such conditions. At a subsequent meeting of the council a reply was read from the Health Department, stating that "officers of health had no statutory powers in regard to the closing of schools on account of disease prevalence." The council considered the present restrictions were altogether irrational, and decided to bring the subject before the next session of the Victorian Municipal Association, with a view to having the regulations so amended that local health officers may be vested with the powers suggested.

Bubonic Plague.—The Premier (Mr. Peacock) of Melbourne, has received two letters from the British Consul at Honolulu reporting two deaths from bubonic plague in that city. The first victim was a Chinese, who succumbed on November 10th. The second death occurred three days later. In both cases the health authorities expressed the opinion that the disease was sporadic.

Queensland.

Vital Statistics.—The Registrar-General for Queensland reports that 157 births, and 75 deaths, were registered in Brisbane during September. Of the deaths whooping cough caused 3, cancer 4, phthisis 12, valvular disease of heart 11, pneumonia 18, enteritis 5.

Notification of Infectious Diseases.—During the month of October last 89 cases of infectious disease were notified, consisting of diphtheria 12, erysipelas 9, scarlet fever 24, typhoid fever 39, continued fever 1, puerperal fever 3. 38 deaths occurred from infectious diseases, 23 being males and 15 females. Of these, 1 was due to bubonic plague, 1 to diphtheria, 7 to typhoid fever, 1 to puerperal fever, and 28 to pulmonary phthisis. In the Bacteriological Institute 423 specimens were examined. In this number were included examinations of 332 rats for plague bacilli, with negative results.

Supposed Baby-farming. — The Brisbane Health Commissioner, with the assistance of the police, has been investigating the abnormal number of infantile deaths in certain quarters. It is probable that a number of places will be brought under strict surveillance, as there is reason to believe that baby-farming is being extensively carried on in Brisbane.

Wine Condemned. —The Health Commissioner, early this month, condemned a quantity of port wine which had been landed from a foreign country. It has been pronounced of artificial manufacture. and not fit for human consumption.

South Australia.

Vital Statistics.—In Adelaide during the month of September, there were three deaths from influenza, seven from phthisis, four from bronchitis, three from pneumonia, and three from enteritis. The total number of deaths was 75.

Manufacture of Beer.—Mr. P. Robinson, inspector of food and drugs, has collected a quantity of information in regard to the quality of beer manufactured in South Australia as compared with that produced in other parts of the world. The comparison sets off the local beer in an unfavourable light, and shows that the liquor produced in this State is weak and washy, not containing the nutritive properties generally credited to the beverage, and shows very little body. Sugar seems to be the chief substitute for malt and hops. The consumption remains the same as it was several years ago, whilst the importation of malt and hops is rapidly nearing vanishing point. The inspector suggests that the brewers be compelled to supply beer of sufficient body and strength for the benefit of the public.

Smoke Nuisance.—At a meeting of the Adelaide City Council recently Alderman Wells submitted a proposition to defer the bringing into operation of the consumption of smoke bylaw within the municipal area for 12 months. The supporters of the bylaw promised that no violent measures would be adopted in its enforcement, and on this understanding the motion was withdrawn.

The Plague.—The Board of Health authorties have declared Queensland and New Caledonia free from plague, and have rescinded the quarantine orders.

Hawker Water Supply.—At a meeting of the vigilance committee held last month, Dr. Shanahan reported having forwarded a sample of water from the new reservoir to the Government analyst. He had received a report from that officer pointing out that the water was unfit for human consumption. It was decided that Dr. Shanahan write to the Government in reference to the water supply, pointing out that the residents are dissatisfied with the service, and requesting the Government to reduce the water rate from 5s. to 2s. 6d. per 1,000 gallons, and urging the necessity for connecting the public school with water.

New Zealand.

Vital Statistics. — From the Registrar-General's report on the vital statistics of the principal towns of New Zealand during the month of October, we learn that in Auckland the total births were 138, and the deaths 51. In Wellington the births were 106, and deaths 36. In Christchurch, births 86, and deaths 35. In Dunedin births were 124, and deaths 63. In these four centres specific febrile or zymotic diseases caused 14 deaths, including influenza, measles, diphtheria, and typhoid fever. Constitutional diseases caused 37 deaths, including phthisis, 16; other tubercular diseases, 7; cancer, 9. Local diseases caused 92 deaths. Of these, 21 were of the nervous system, 20 of the circulatory system, 29 of the respiratory, 12 of the digestive, 6 of the urinary, 2 of the reproductive organs, and 1 of the organs of locomotion. There were 18 deaths from violence, all accidental.

Dr. Mason, the Government Chief Health Officer, contributed to the *New Zealand Times* an interesting article on "The Septic Tank Method of Treating Sewage." It described the most up-to-date principle adopted for the complete absorption or destruction of household drainage by the adoption of a Septic Tank in which microbes play the part of scavengers, the outflow being entirely liquid, and perfectly sweet and innocuous. The Porirua Asylum is well equipped with such a plant, and it works admirably, the outflow in this instance being directed in concrete channels over a kitchen garden area of many acres, thus affording an excellent means of irrigation.

Tasmania.

Vital Statistics.—During the month of October 150 births (67 males and 83 females) were registered in the registration districts of Hobart and Launceston, an increase of 19·4 as compared with the average of the births registered in October during the last five-yearly period. The deaths numbered 66 (38 males and 28 females), 19 deaths, or 28·78 per cent. of the whole, took place in public institutions. The total number of deaths registered shows a decrease of 7·2 as compared with the average number of deaths registered in October during the last five-yearly period.

New South Wales.

For selling two tuberculous bullocks, a dealer was fined £20 and costs at Lismore.

The Noxious Trades Act.—The following is an extract from the report on noxious trades recently presented by the sanitary inspector of the Board of Health.

"The different local authorities have relaxed their activity . . . and in very many cases absolutely no attention has been paid to the manner in which business has been carried on by various traders. At present, the high license fee seems to be an incentive to local authorities to leave these traders alone for fear of losing the revenue derived from such works during the next year."

"In view of this report, the Board concludes that its object in fixing a fee of £10 for certain trades (to afford local authorities the means of providing efficient inspection) has not been attained; and the Board proposes to adopt a uniform fee of £1 per annum for all noxious trades except rag picking, which will remain as at present."

Board of Health Amended Regulations.—Amended regulations made by the Board of Health for carrying into effect the provisions of the "Public Health Act" are published in the *Government Gazette* No. 1024. They include the following:—

The owner or occupier of infected premises on whom notice has been served by a local authority to cleanse and disinfect the same or part thereof, and to disinfect or destroy infected articles thereon, who has informed the local authority that he will carry out the said cleansing and disinfecting himself, shall complete it to the satisfation of a legally qualified medical practitioner, as certified by the latter to the local authority in writing, within the time named in the said notice.

The body of every person who has died of an infectious disease shall be wrapped as soon as may be after death in a wrapper so as to envelope it completely, which wrapper shall be wet with a solution made by mixing five parts of carbolic acid with 95 parts of water.

Every such body shall be coffined, and the lid of the coffin shall be permanently fastened down, within 24 hours after death.

The joints of the lower part of every coffin used to contain the body of a person who has died of an infectious disease shall be watertight.

Any person wilfully offending against any of the three last preceding regulations shall be liable to a penalty not exceeding five pounds.

Smoking Chimneys—The First Prosecution.—At the Central Summons Court a few days ago, Robert Saunders was proceeded against, on the information of Louis B. Blackwell, inspector of nuisances of the City Council, on a charge of having on November 8th, used a furnace in premises in Wattle-street, Sydney, which was not constructed so as to prevent, as far as possible, the formation of smoke therein. This was the first prosecution under the Act, and excited considerable interest. Mr. Walter Edmonds, in opening the case, siad that the proceedings were laid under the Smoke Nuisance Abatement Act of 1866. The Act had not been in operation yet, but the City Council determined to use its provisions, and due notice had been given to those persons who used furnaces that the Act would be put in motion. This was done to enable the persons concerned to make certain arrangements. The defendant was notified in that way. The council had no desire to harrass anyone, but in the interest of the health of the people, thought that steps should be taken to prevent the smoke. The council had furnaces of its own, and it had taken steps to obviate the smoke trouble, and had succeeded. This was done as an object lesson. After hearing a deal of evidence, defendant was fined 40s., and ordered to pay £7 7s. witnesses' expenses.

Metropolitan Sanitary Districts. Vital Statistics.—In the report of the Medical Officer of Health for the quarter ended, September 30th, it is stated that the number of deaths registered in the metropolis during the quarter just completed is greater than that of any consecutive three months since the third quarter of the year 1898. The principal factor in this increase in the deaths was pneumonia, which has accounted for far more deaths than any other single disease, and has proved more deadly than in any previous quarter for many years past. Other respiratory diseases—represented by bronchitis, whooping cough, and influenza—have also been very fatal. The third quarter of the year is generally marked by an increase in the number of deaths from respiratory troubles, and the unusually sudden and frequent changes of weather experienced in Sydney during July and August are doubtless, to a great extent, responsible for the unusual mortality. The number of births registered in the metropolis was 3,264, or slightly more than in the same quarter of any of the previous five years. The birth rate was at the rate of 27 per 1,000 per annum. The true infantile mortality rate was 130 per 1,000 births. This would be extremely low were the rate maintained throughout the year, but the winter months are always less fatal to young children than the hot months of summer. The total number of deaths to be ascribed to the metropolis after eliminating those of non-residents who died in Sydney hospitals, and including such deaths of Sydney residents in country hospitals as I have obtained information of, was 1692, which gives an annual death rate on the population of 14 per 1,000. The most fatal disease was pneumonia, which accounted for 241 deaths, or about 14 per cent. of the total deaths. The average number of deaths from the same disease during the corresponding quarter of the previous five years was only 130. Bronchitis, pneumonia, and influenza together account for 413 deaths, or over 24 per cent. of all deaths. Phthisis was responsible for 145 deaths, 14 more than the average for the September quarter during the past five years. The causes which determined the high death rate from respiratory diseases may probably be held responsible for a portion of the phthisical deaths. Persons who are suffering from advanced consumption are extremely susceptible to climatic influence. A considerable number of deaths—16 in all—were certified to be due to cerebro-spinal fever. This disorder has been epidemic in Sydney since the latter portion of 1899. It appears to be increasing. During the year 1900 the total number of deaths attributed to cerebro-spinal fever was 17. Whooping-cough has been more fatal than for some years. It contributed 34 deaths to the total. The number of cases of infectious diseases notified during the quarter shows a considerable increase over the figures for the corresponding quarter of 1900. Scarlet fever appears to have been steadily increasing throughout the metropolis during the whole of the year. 360 cases were notified this quarter, as against 101 during the same quarter last year. Diphtheria has increased from 61 in 1900 to 101 in 1901. There were, however, fewer cases this quarter than during the previous one (157). Typhoid fever shows the usual winter fall, but is more prevalent than was the case last year. Sixty-seven cases were notified during the quarter under review. The same period in in 1900 gave 52 cases.

During the month of October there were 1,174 births and 492 deaths registered in the Metropolitan District of Sydney. The chief causes of death were—whooping-cough 16, cancer 31, phthisis 50, old age 18, apoplexy 20, pneumonia 54, enteritis 21, Bright's disease 26; typhoid fever and diphtheria caused two deaths each. Returns of the Department of Public Health show that 21 cases of illness from typhoid and 26 cases of diphtheria were notified during the month.

In the report of the Government Statistician on the vital statistics of the metropolis for the month of November, it is stated that during the month 1,016 children were born, being 22 more than the average for November during the previous five years. The deaths during the month numbered 539, or 11 more than the quinquennial average for November, leaving a balance of births over deaths of 477. Of the 539 persons who died, 226 were under 5 years of age, and 172 were less than 1 year old. Amongst persons aged 70 and upwards there were 60 deaths at the following ages:—37 ranging from 70 to 79, 23 from 80 to 89. The main causes of death were—whooping-cough 34, diarrhœa 21, phthisis 35, cancer 29.

Newcastle.—In the report on the vital statistics of Newcastle district for the month of October it is stated that the births during the month were 151, or at the rate of 2·74 per 1,000 of the population. The deaths numbered 57, or 1·04 per 1,000 of the population. There was one death from typhoid fever with six cases of illness reported from that disease; and one diphtheria case was reported, without fatal result.

In the report on the vital statistics of Newcastle district for the month of November it is stated that the births during the month were 148, and the deaths numbered 79.

Garbage Destructor.—The foundation stone of this structure was laid in the early part of this month by the Mayor, Sir James Graham, M.D., and, the erection of the structure is to be carried on with all possible speed. Mr. T. J. Kenway (the representative of Messrs. Goddard, Massey and Warner, Ltd.) explained that the destructor being erected is one of six cells. The boilers are of the multitubular type, and the chimney stack is to be 150ft. high, with a diameter of 5ft. 6in. The whole plant is designed on the most economical principle. Six more cells could be added, and so double the consumption. The guests were each handed a pleasing souvenir, in the shape of an illustrated description of the destructor erected by the firm in Sheffield (England). In that case, as here, six cells were originally erected. Ten others have since been added, and a forced blast applied. Each of the sixteen cells is 6ft. by 6ft., and capable of burning a total of 160 tons per day of 24 hours. The construction of the mattress chamber permits all mattresses being deposited in the fire without undue handling. There, as here, boilers of the multitubular type are used; and provision is made for dealing with about 50 tons of clinker per day. The internal parts are built in a special kind of firebrick, to stand very high temperature, and thereby reduce the wear and tear to the lowest amount. Other important features are, the lowest cost per ton in treatment for labour, and working the plant without nuisance.

THE BUBONIC PLAGUE.

As reported in our last issue, a case of bubonic plague was discovered in a suburb of Sydney and removed to the Quarantine Hospital. The patient is now convalescent, and no further case had been reported up to December 10th. Some rats, infected with plague baccilli, have been discovered in the store in which the patient worked, but not in any other part of the city or suburbs. A rat crusade has again been organised, and thousands have been caught and burnt. The sewers have been thoroughly fumigated, under the direction of the Board of Health. The Premier has received from the Board of Health a communication to the effect that the Board recently adopted a resolution declaring (*a*) that Queensland and New Caledonia should be declared free from plague; (*b*) that the special quarantine orders with respect to vessels from ports in Queensland and New Caledonia should be rescinded, consequently all vessels leaving such ports on and after the date of this resolution (November 19th) will be granted free pratique, subject to the ordinary port inspection, and port health officers have been instructed accordingly.

Unfortunately, another case of plague has been reported from Waverley, and the patient has died from the disease.

The information with respect to this second case of plague, published by the Board of Health, gives the following particulars:—

J. E. D., male, aged 36 years. Arrived in Sydney three months ago from Rockhampton. Queensland, and has since resided at Waverley. In the course of work he attended more than one place of business in the city. Was well on Sunday morning, 8th inst., early, but about 11 a.m. felt a sharp pain in the left groin, which was attributed to strain whilst playing with his children. During the afternoon he developed severe headache; was restless during Sunday night. On Monday morning he rose to attend his business but felt too ill to do so, and returned to bed again. A swelling was then present in the groin. During Monday and Tuesday he became gradually worse, being at times delirious, and on Tuesday evening was reported to the Department of Public Health. On examination by a medical officer of the Department, he was found to be seriously ill, semi-comatose, only partially capable of being roused, and then speaking incoherently. He had a temperature of 103.4° F., and showed the accompaniments of fever. There was a well-marked bubo of the left femoral glands, with swelling of the adjacent inguinal glands. Sanious lymph obtained from the bubo revealed numerous bacilli pestis, and on agar tubes a pure culture was obtained. The animal inoculated died in three days, and presented the *post-mortem* appearances characteristic of plague; the viscera and blood were teeming with bacilli pestis.

The very serious condition of the patient prevented his removal to quarantine, and a nurse was placed in charge, but the patient died during the night. His body was taken for burial at the Quarantine Station on Wednesday morning, and the usual measures of disinfection were carried out with respect to the premises.

UNIVERSITY INTELLIGENCE.

The Chair of Pathology, University of Sydney.—The Senate of the University of Sydney at its last meeting elected Mr. David Arthur Welsh, M.A., B.Sc., M.D. Edin., to be first Professor of Pathology in the University. Dr. Davd Arthur Welsh, graduated as master of arts in the University of Edinburgh in 1887, with first-class honours in mathematics, gaining the Drummond mathematical scholarship, and in 1890 took the degree of bachelor of science in the department of the mathematical sciences. During his medical course he gained five first and two second University medals and the Wightman prize in clinical medicine, and acted as prosector and assistant demonstrator in practical anatomy, as assistant demonstrator in practical physiology, and class assistant in pathology. In 1893 he graduated as bachelor of medicine and master of surgery, with first-class honours, and was awarded the Murchison memorial scholarship; in 1897 he took the degree of doctor of medicine, and was awarded a gold medal for his thesis. Since his graduation as a bachelor of medicine he has held the offices of extra assistant physician to the Royal Edinburgh Asylum, and resident physician in the Royal Infirmary; junior assistant to the professor of pathology in Edinburgh University, and tutor in clinical medicine at the Royal Infirmary; pathologist to the Royal Hospital for Sick Children, and afterwards pathologist to the Royal Infirmary. In 1898 he was appointed senior assistant to the professor in pathology and lecturer in pathological bacteriology, which offices he resigned in March, 1901, when appointed chief pathologist at the Royal Infirmary. Dr. Welsh has published several papers embodying the results of his researches upon pathological and bacteriological subjects.

A University Lecturer on Pharmacy.—The University of Adelaide is the first to appoint a Lecturer on Pharmacy for pharmaceutical students in Australasia. When pharmaceutical education was first seriously considered, the Pharmacy Board of Victoria made vigorous efforts to persuade the Melbourne University to provide the necessary instruction; this was refused. Many years after the South Australian Board found it possible to induce the University of Adelaide to make provision for the teaching of pharmaceutical students in the purely scientific subjects of Chemistry, Botany, and Materia Medica, and now, owing largely to the persistence and enthusiasm of one or two men, the University has consented to appoint a Lecturer on Pharmacy on the nomination of the Pharmaceutical Society. The New South Wales pharmacists have lately made arrangements with the Sydney University for work of this kind, and are agitating for the provision of regular pharmacy lectures.

Adelaide University: Pass Lists in Medicine and Surgery.—The following is the pass list for the ordinary examination for the degrees of bachelor of medicine and bachelor of surgery. (First class in order of merit, second and third class in alphabetical order):—First year: First class—Robert Douglas Brummitt, Walter Henry Russell (equal), recommended for the Elder prize; second class—Dean Dawsen, John Victor McAree; third class—Elliott Arthur Brummitt; passed in Anatomy and Botany—William Morgan Hunn. Second year: First class—Eulalie Hardy Hinton Burnard, Phœbe Chapple (equal), recommended for the Elder prize; second-class—Renfrey Gershom Burnard. Constance May Cooper, Malcolm Leslie Scott; third class—Claude Ernest Bennett, Arnold Edwin Weidenbach. Third year: First class—None; second class—Lionel Wykeham Hayward, Edward Joseph Stuckey. B.Sc.; third class—Melville Birks. Fourth year: First class—*Helen Mary Mayo, Clive Newland; second class—Ethel Mary Murray Ambrose, Arthur Ross Clayton, Francis Frederick Muecke; third class—Thomas Badge Ashton, Rosamond Agnes Benham, Alexander Euan Caw, Clement Victor Wells. *Recommended for the Dr. Davies Thomas Scholarship.

University Dental School.—On Dec. 9th the premises which have recently been secured by the University authorities at the corner of George and Bathurst streets to be used as a dental school in connection with the Sydney University, were opened by Mrs. John See, wife of the Premier. The suite of rooms comprises an extraction room, an impression room, a mechanical laboratory, a demonstrator's room, a lecturer's room, a lecture room, and a surgical room.

HOSPITAL INTELLIGENCE.

King Edward Hospital, Sydney.—The latest addition to the institutions of Sydney for dealing with sickness or accidents is that established within the last few days by the Australian Ambulance Association, and known by the name of the King Edward Hospital. This is situated in Moore-road, Miller's Point, close to the eye branch of the Sydney Hospital. The building is one of three stories, and belongs to the Sydney Harbour Trust. That body has done much in helping the movement, and spent over £60 in fitting up the building and attending to the sanitary arrangements. On the ground floor is a small casualty ward for dealing with accidents, and fitted up with six beds. On the second floor is a medical ward, in which there are seven beds, and where cases of sickness are to be treated.

St. Joseph's Hospital, Auburn.—This hospital was opened in 1892 by Lord Jersey, and has been controlled by the Sisters of Mercy. Up to the end of October last 1502 patients had been admitted. The total money received amounted to £6224 15s., of which £2350 was devoted to liquidating the debt on the hospital, and the balance was expended on maintenance. The foundation-stone of an additional building was laid last month. This will provide for 27 more beds, an operating room, nurses' quarters, and other needed rooms. Drs. Furnival, Harrison, and Kerr are the members of the medical staff.

Junee Hospital.—A fever ward is to be erected at this hospital at a cost of £347.

Carrington Convalescent Hospital, Camden.—This hospital has been recently painted throughout. The work of installing the electric light, which is being carried out by Messrs. Crompton and Co., is progressing satisfactorily, and will probably be completed before Christmas. The average daily number of patients in the hospital is 86.

The Newcastle Hospital.—At the monthly meeting of the committee of management of the Newcastle Hospital, the house committee reported that the cost of furnishing the new nurses' home was £367 16s. 10d., and that £536 10s. 9d. had been expended in the equipment of the operating theatre and the new wards in the operation block. The proposed alterations would increase the accommodation for patients from 65 to 80 beds, and would necessitate a larger nursing staff. It was intimated that the recent benefit race meeting promoted by Mr. Hannell, the president, had been highly successful, the sum of £500 10s. 10d. having been paid into the hands of the treasurer as the result of the reunion.

Hobart Hospital.—At an ordinary meeting of the Board of Management of the Hobart General Hospital, the chairman spoke of the great loss the institution had sustained in the death of Dr. R. S. Bright. With reference to the vacancy caused by the retirement of Dr. F. T. Macgowan, the committee recommends that the assistant house surgeon and dispenser, Dr. D. H. E. Lines, should be promoted, the appointment to take effect on the expiration of the two months' notice required to be given by Dr. Macgowan, and that applications be invited to fill the junior position with as little delay as possible, so that no time may be lost. The following letter, written by the late Dr. R. S. Bright nine days before his death, was read:—"Macquarie-street, October 19th, 1901. W. F. Brownell, Esq. Dear Mr. Brownell,—I have your letter dated the 13th inst., telling me that the board have accepted my resignation with regret; and I am also obliged for your kind expression of regret at parting from me. I feel grateful for the kind remarks made by the members present at the meeting on my letter being read, and I also feel sorry at leaving a board, where my associations with all its members have at all times been so pleasant and friendly. I desire to express my best thanks to the board for the honor they have conferred by appointing me an honorary consulting medical officer to the hospital. I have also to thank you for arranging for my relief from duty at once. For the resolutions of the board forwarded to me, I am much obliged, and it is with pleasure that I learn that the board is pleased to place a high value on the work I have done at the hospital during the last 42 years.—I am, yours, etc., R. S. Bright." A letter was read from Dr. Macgowan resigning his position as House Surgeon to the hospital, in consequence of his taking up the practice of the late Dr. R. S. Bright. Dr. Gregory Sprott was appointed honorary medical officer in the place of Dr. R. S. Bright, resigned.

Adelaide Hospital.—The committee have advertised for one medical superintendent at £300 per annum and quarters, and five house surgeons at £50 each and quarters for the year 1902.

The Women's Hospital, Sydney.—At the monthly meeting of the directors of the Women's

Hospital, held last month, certificates were signed in favour of 20 students who had attended the prescribed number of obstetrical cases. A vote of thanks was passed to Miss Neill, who had presented to the hospital a number of surgical instruments which had been the property of her brother, the late Dr. L. E. F. Neill. Sir James Graham, at the request of the president, reported progress in connection with negotiations with regard to the proposed amalgamation of the lying-in branch of the Benevolent Asylum with the Women's Hospital. The matron's report of the work done during the month was as follows:—Indoor patients admitted 23, discharged 28, and there remained in the wards 18 patients and 4 infants. Outdoor Department: 112 patients had been attended, and 27 obstetric cases in the district.

Manly Cottage Hospital.—At the last meeting of the board of the Manly Cottage Hospital, presided over by Mr. John Woods, a report was submitted by the matron stating that the juvenile bazaar had realised the sum of £47 10s. The concert recently held under Mr. Marcus Bryant's direction realised a substantial sum, which will be devoted towards the purchase of a piano. It was decided, on the motion of Mr. W. J. Douglas, that a third hon. medical officer be appointed, and Dr. G. R. P. Hall was chosen to fill the position.

Gundagai Hospital.—At a special meeting of the Hospital Committee 12 designs from some some of the best architects of the State were received for the new hospital building, to contain 14 beds, and administration offices, and to cost about £2,000. The design of Messrs. Nixon and Adam was accepted, and they were awarded the premium of £10 10s. offered for the competition.

Bulli Hospital.—Owing to several minor accidents and severe cases of pneumonia the hospital funds and the accommodation have been severely taxed. The boardroom is being utilised as an additional ward.

Women's Hospital, Melbourne. — At the committee meeting of the Women's Hospital held last month, a letter was read from the town clerk (Mr. J. Clayton) stating that the Mayor had consented to preside at the meeting to be held in the Town Hall on the 28th November, to make arrangements for the proposed combined movement to raise funds for the new buildings. Considerable interest is being taken in the project, and already offers of assistance have been made from various quarters. The building committee and the medical staff have decided that accommodation for 40 additional beds is required, and, as the need is a pressing one, all classes in the community will be invited to assist.

Queen Victoria Hospital, Melbourne.—At the last monthly meeting of the committee of the Queen Victoria Hospital, tenders for the erection of additions to the hospital were received, and that of Mr. W. H. Cooper accepted. The month's attendances of out-patients numbered 1,427, representing 348 new cases.

Sydney Hospital.—Improvements have been progressing at the Sydney Hospital for some months past, principally in connection with the operating theatre and Nightingale wing (nurses' quarters). The whole of the old theatre has been demolished with the exception of the outside walls, and is being rebuilt on modern principles. When finished, the theatre will be complete in every sense. It was found necessary to send to New York for two patent sterilisers. The Nightingale wing is being considerably enlarged and carried out towards the Domain, thus permitting of more nurses being enrolled, and allowing more leisure for the nursing staff. The present Government granted money for the above improvements. In other respects improvements have been made at the hospital. Seating accommodation for out-patients has been provided on one of the verandahs. It is hoped that circumstances will shortly permit of the hot-water service being overhauled and brought up to requirements. Enlargements to the children's wards are in contemplation, and the erection of a new casualty room. The front balconies will be thrown open for the use of patients as soon a few necessary arrangements are completed.

Prince Alfred Hospital, Sydney.—The Bill authorising the expenditure of £45,000 on additions to Prince Alfred Hospital, Sydney, has passed both Houses of Parliament, and the work has already been commenced.

Greytown Hospital, New Zealand. — The Greytown people are to be congratulated upon the erection of a new hospital. It is being built in brick behind the present old hospital, and under the direction of Dr. Bey it promises to be a most useful and thoroughly up-to-date establishment. A septic tank is to be constructed for the purpose of drainage.

MILITARY INTELLIGENCE.

Presentation of Rewards for Valor.

On December 4th a parade of all arms of metropolitan troops was held at Victoria Barracks for the purpose of the presentation of the Victoria Cross to Captain N. R. Howse, of the New South Wales Medical Staff Corps, in recognition of his gallant conduct during the South African war. The particular incident which gained him the recommendation for this distinction was recorded in the *London Gazette* as follows:—"During the action at Vredefort on July 24th, 1900, Captain Howse went out under a heavy cross fire and picked up a wounded man, and carried him to a place of shelter." The parade was also for the purpose of presenting the Distinguished Service Order decorations to those officers who had been awarded the honor, and who were at present in Sydney.

Presentation of Victoria Cross.

Captain Howse having been called forward, Colonel Mackenzie read the warrant notifying that his Majesty the King had been pleased to signify his intention to confer upon Captain N. R. Howse, New South Wales Army Medical Corps, the decoration of the Victoria Cross, in recognition of his gallant conduct during the South African war, and his Majesty commanded that the earliest fitting opportunity should be taken to present this distinction to the officer in question.

His Excellency the Lieutenant-Governor, on presenting the Victoria Cross to Captain Howse, said:—"I feel highly honoured that it is my pleasing duty to present to you on behalf of his Most Gracious Majesty the King, the first Victoria Cross which has been awarded to a citizen of New South Wales, and I congratulate you on being the recipient. Nor is it to be overlooked that you, a non-combatant, won this Victoria Cross by your exceedingly gallant action in rescuing, at very great personal risk to yourself, a man who was at the time under a heavy cross-fire, and whose life was in imminent danger. May your life be spared long to wear this honour and to wear it in honour.

His Excellency then pinned the decoration on Captain Howse's breast amid great applause from all parts of the ground.

His Excellency then presented the decorations to the following medical officers, recipients of the Distinguished Service Order in the following order, shaking hands with each officer as he advanced to receive the honour, and pinning the decorations on his breast:—

Major (now Lieutenant-Colonel) T. H. Fiaschi, New South Wales Army Medical Corps.

Captain (now Mayor) R. E. Roth, New South Wales Army Medical Corps.

Captain (now Major) A. T. Perkins, New South Wales Army Medical Corps.

Captain T. A. Green, New South Wales Army Medical Corps.

Career of Captain Howse.

Neville Reginald Howse, F.R.C.S. England, L.R.C.P. London, was born in Somersetshire, England, in 1864. He entered on his medical career at the age of 17, and obtained his degrees of M.R.C.S. England, and L.R.C.P. London, soon after attaining his twenty-first year. He came to Australia in 1889, and practised his profession on the Manning River till 1895, when he returned to England, and fulfilled all the house appointments at his old hospital, and was admitted a Fellow of the Royal College of Surgeons, England. He returned to Australia a few months prior to the outbreak of South African war, and settled at Orange. He received a commission as lieutenant in the New South Wales Army Medical Corps, and proceeded to South Africa with the second contingent. He first served under General Gatacre, in the eastern division of Cape Colony, and later joined General Ian Hamilton's column on the march to Pretoria. There he took part in the famous march past Lord Roberts on June 6th. He was present at all the engagements of the column, and distinguished himself so greatly that he received promotion to rank of Captain. It was during the pursuit of Commandant De Wet's column that the action at Vredefort took place at which Captain Howse gained the V.C., for conspicuous bravery. During this engagement his horse was shot dead. He proceeded thence with the column towards Rustenburg, and during one of the many minor engagements, after having successfully operated on a Queensland officer on a kopje under fire, and volunteered to remain with his patient, he was taken prisoner and detained by the enemy for a period of six weeks. He was attacked shortly after being released with enteric fever, and when convalescent was invalided to England, and returned to Australia last March, resuming the practice of his profession at Orange.

Officers' Examination.—The following officers of the N.S.W. Army Medical Corps underwent examination at the termination of the Army Medical Corps officers' school of instruction, and qualified as follow:—Lieutenant J. Kerr, passed with honors; Lieutenant E. P. M'Donnell, passed; Lieutenant J. A. Dick, passed.

New Zealand—The following medical officers have been appointed members of a Pension Board under clause 4 of the "Military Pensions Act, 1866":—*Wellington*—James Mason, Esq., L.R.C.P. E., L.R.C.S. E., &c.; Thomas Harcourt Ambrose Vallentine, Esq., L.S.A. L., M.R.C.S. E., &c.; John Teare, Esq., M.B., B.S., E., &c. *Volunteer Medical Staff*—Surgeon-Captain Geofery S. Clayton has been appointed Surgeon-Major. Date of commission, 1st September.

A Buller Memorial.—It has been decided to take steps to commemorate in the county of Devon, England, the brilliant military services rendered by General Sir Redvers Buller, V.C., during a period of 42 years. The movement has no party bias, and its sole object is that stated. A committee has been formed, with the Mayor of Exeter as chairman, and it has been decided to accept subscriptions to a shilling fund from all parts of the Empire. The nature of the memorial must necessarily depend upon the amount of subscriptions received, but the following have been suggested:—A statue to be erected at Exeter, a statue to be erected on Plymouth Hoe, a convalescent home for soldiers at Crediton (Sir Redver's Buller's birthplace). Subscriptions, which may consist of any number of shillings, may be remitted direct to the hon. treasurer or to either of the hon. secretaries at Exeter, England.

MEDICAL NOTES.

Rontgen Rays for Cancer.—In reference to the cablegram announcing that Professor Lahmann, of the Medical College, Chicago, had treated cancer with success with the Rontgen Rays, Dr. Cleaver Woods, of Albury, states that his experience of the treatment of the disease by that method is far from encouraging. Three years ago he undertook a series of experiments with the rays on several cancer patients, but after an exhaustive trial he was compelled to admit that no apparent check was made in the progrees of the cancerous growth.

Hospital Saturday Fund.—At the eighty-sixth meeting of the board of directors of the above, the result of the conference with Sydney and Prince Alfred Hospitals *re* admission and maintenance of industrial subscribers was reported to the board, and it was stated that after much deliberation it had been agreed by both hospitals not to depart from the agreement of 1898 without due notice being given.

Trained Nurses' Home.—The nineteenth annual meeting of the Home for Trained Nurses, was held at No. 140 Phillip-street. Sir Arthur Renwick, M.D., M.L.C., was in the chair. The annual report stated that the home had become self-supporting for the past three years; the financial condition was such that the sum of £152 10s. had been declared as a dividend in favour of the nurses in accordance with rule 6. During the year five nurses had left the home, and four had joined the staff. Two hundred and four cases were attended by the nurses, and their work had been gratefully acknowledged by both patients and medical men. The whole of the nurses were registered members of the Australian Trained Nurses' Association. The chairman, in moving the adoption of the report, said he was especially pleased at the proposal to extend the work of district nursing, for in many instances a nurse from the home would be a blessing to the poor who could not afford to pay for the services. The value of the Home was also great from the fact that the nurses available had been trained specially for certain cases, and where such services were required they could be had at once. The report was adopted. Nurses Ford and Dwight were handed bonuses for special work and good conduct during a period of three years in the Home.

Lieutenant Arthur Cosgrove, of Cooma, who recently returned from the Transvaal after serving in the war, complained of a lump in his throat, and after consulting Dr. Ryan the latter lanced the growth and removed a piece of thin brass cartridge shell about 1 in in length.

Drink Cure Experiments in Melbourne.—Captain Evans, inspector-general of penal establishments, is going to try the drink cure on certain prisoners, with the approval of the Chief Secretary, It is proposed that a start shall be made with six female prisoners, and the inspector-general has written to the gaol chaplains asking them to select patients for the experiment. No drugs will be used, and the treatment will be for the most part on the lines laid down by Dr. Braithwaite, the chief inspector under the Inebriates Act of England. Dr. Braithwaite holds that very little can be done in the way of reforming inebriates under 12 months, and the inspector-general purposes to extend the treatment here over that period. One feature of the treatment is plenty of open-air exercise, such as would be necessary in the cultivation and tending of flower gardens.

Medical Practitioners' Act.—A bill introduced into the Legislative Assembly, N.S.W., by Mr. E. M. Clark, and read a first time, provides :—"It shall be lawful for the New South Wales Medical Board to place upon the separate register referred to in section 3 of the Medical Practitioners Acts Further Amendment Act, 1900, the name of any person who proves that he has studied at a recognised school of medicine, surgery, or obstetrics, although he had not completed the full course at any such school; and proves that he had practised in a reputable manner in New South Wales as a medical practitioner during ten years prior to the passing of this Act; and produces a certificate signed by two legally qualified medical practitioners of his ability and good repute in the practice of his profession." It is to be hoped that this bill will not be passed, since the effect of it would be to nullify much of the good already received by the passage of the recent Medical Acts.

Infants' Home, Ashfield.—Some necesssary additions have recently been made to this institution consisting of a new ward, beds for children, doctor's room, dining room for mothers, nurses' quarters and laundry, at a cost of £1400. This has been defrayed by a bequest of £500 from the late Mr. Henry Wait for this purpose, and by some special collections and donations. The ward has been named the Louise Taplin ward after the late matron, and the wall bears a chaste memorial bronze in her honor. At the opening ceremony, Professor David, F.R.S., eulogised the work of the late matron, and referred in terms of highest praise to her love for the children and her conduct of the institution. He presented a silver key given by the children, to Lady Graham, Mayoress of Sydney, to perform the ceremony of unlocking the ward.

The Brisbane Hospital Saturday and Sunday Fund Committee on Thursday resolved to distribute the balance of the year's collections, the total of which was £710, as against £730 last year.

The Dr. Way Memorial.—A meeting of the Dr. Way memorial committee was held in the arbitration room, Brookman's Building, Adelaide, on Thursday. The Hon. J. L. Stirling, M.L.C., reported that a considerable number of subscriptions had been given and promised. It was agreed that the fund should be closed at an early date, and that an earnest appeal should be made to all who desire to contribute to do so as soon as possible, and thus enable the committee to finalise their efforts.

A "regrettable" story was told at Broken Hill, N.S.W., at the last meeting of the Friendly Societies' Council by the secretary, who said that the Medical Institute was not the success it should have been, and would have to be closed. We congratulate the medical men in Broken Hill on the result of their unanimity in this matter.

A series of lectures on "Anatomy" have been delivered by Dr. Sydney Jamieson, at the Art Society's Rooms, before a large number of students and members of the Society.

At a meeting of the Bulli Cottage Hospital Committee, Mr. D. Ritchie, president, being in the chair, a unanimous vote of condolence was passed to Mrs. Clifton Stuart on the death of her husband, the senior honorary medical officer of the hospital.

MEDICO-LEGAL.

We are indebted to Dr. Sydney Jamieson for the reports of the following interesting medico-legal case :—

About 7 p.m. on the 6th April, 1900, a boy *æt* 16 years, died rather suddenly.

It appears that six days before, he had a fight with another boy younger than himself, on the Circular Quay. Shortly afterwards he began to complain of pains in the head. On Friday, April 3rd, whilst lying on a sofa at home, he was suddenly seized with a convulsion and fell from the sofa on to the floor. He became unconscious at once, and remained in that condition till he died three days later. The matter was reported to the City Coroner, and a *post-mortem* was ordered.

The body was well-nourished; *post-mortem* lividity well marked; the only sign of violence upon the surface of the body was a recent abrasion about the size of a sixpence, situated near the outer angle of the right eye. Both pupils were equal, but widely dilated. Beyond some hypostatic congestion the lungs showed nothing abnormal. The heart cavities were filled with a mixture of fluid blood and dark coagulum. The valves and the cardiac muscle were quite healthy looking. The liver, beyond a little mottling of its surface, showed no abnormality. The spleen was slightly enlarged, firm, its capsule tense, and on section, of a light brown colour. The trabeculæ and Malphigian bodies were very prominent. The capsule stripped readily from the kidneys, leaving a smooth surface on which the stellate veins were very prominent. The cortex was of about normal proportions, and the markings were somewhat obscured. The cortex was of a greyish colour, contrasting with the basis of the pyramids, which were deeply congested. Bladder and ureters healthy. A microscopic examination of the kidneys showed that they were in a state of cloudy swelling.

On reflecting the scalp no sign of recent or old contusion was found. The skull cap was removed, but no sign of fracture was found. The whole of the surface of the brain, beneath the pia-arachnoid, was found to be thickly coated with a yellowish green purulent looking exudate. A similar condition was found extending along the whole length of the spinal cord. The temporal bones were carefully examined, the internal ear, mastoid, antrum, and middle ear being thoroughly explored, but no sign of disease was found. All the other accessory sinuses of the skull were similarly examined, but nothing found.

The tonsils and naso-pharynx showed nothing abnormal. Some smear preparations were made from the exudate on the brain surface, and large numbers of oval-shaped diplococci were found resembling in morphological characters, the gonococcus, but somewhat smaller, and, like it, found for the most part in the interior of the leucocytes. These organisms stained readily by fuchsin and gentian violet, but not by Gram's method. I had no opportunity of inoculating media, but there can be no doubt that they were the diplococcus intracellularis meningitidis of Weichselbaum.

The case, therefore, was one of cerebro-spinal meningitis, and not a septic meningitis from wound infection, as the history of the case suggested.

About 18 months ago three cases of this disease were recorded by Dr. Sinclair Gillies as having occurred in a house in Miller's Point, in the same neighbourhood from which this case came.

Sentenced to Death.—During the last sittings of the Central Criminal Court, at Darlinghurst, Sydney, two men were sentenced to death. Campbell, a man of 24 years of age, was condemned to death for rape, committed on a young girl near Queanbeyan, under revolting circumstances. A similar charge against him in connection with the Ramsay's Bush outrage, was withdrawn. The execution has been fixed for December 20th. There can be no doubt that in the interests of society the penalty of death for so foul a crime should be enforced, but it is pretty certain that this man is a degenerate sexual psychopath. In the other case a man named Kuhnell, of foreign descent, was condemned for attempting to poison his fiancée by prussic acid. The circumstances of this crime point strongly to mental aberration, since the only motive for the committal of so serious an offence appeared to be the prisoner's false statement of his financial position, and his inability to keep his promise of marriage. The death sentence has been commuted to imprisonment for life.

Chemist Prosecuted Under the Medical Act.—At the City Police Court, Perth, on November 19th Mr. Herbert Bingeman was charged with having "practised medicine by medically treating the eyes of John William Thompson, and prescribed and advised a certain lotion for the purposes of curing an ailment of the eyes of the said John William Thompson, he not being a medical practitioner registered under the Medical Ordinance, 1869, or the Medical Act 1894." On July 12th, Thompson visited defendant. He examined the eye, said Thompson was suffering from a very severe cold in the eye, that he would give him something for it. Put some lotion in the eye, bound it up, and made a bottle of the lotion, the label on the bottle bearing written directions. Charged 7s. 6d. A week later Thompson saw defendant again, and was advised to see a doctor. He went to the hospital, but not till July 26th, when he had already lost the sight of the eye. Seven weeks and a-half afterwards the eye was removed. The magistrate in giving his decision said that if defendant had not examined the eye, but simply taken Thompson's word as to what was wrong with the eye, and sold him a bottle of lotion, the matter would have been different; but defendant had examined the eye and prescribed. Therefore, he found that defendant had practised medicine within the meaning of the Medical Act 1894, and he imposed a fine of £5, with costs. Notice of appeal was given.

It will be seen from an announcement in our advertising columns, that Mrs. H. Burrows has opened a Sanatorium for Children, at Kingsdown, Lindfield.

PERSONAL ITEMS.

The estate of the late Dr. E. W. Way, of Adelaide, has been sworn not to exceed £10,400.

The will of the late Sir James Agnew has been proved at under £70,000.

The will of Dr. Bright has been sworn at under £14,000.

Dr. W. B. **Mugliston**, late of Springwood, N.S.W., who now resides at Neutral Bay, was recently entertained and presented with an address and collection of plated-ware as a testimony of the esteem felt for him in the district of Springwood.

Dr. **Halford**, medical officer to the Metropolitan Joint Board, has been appointed health officer at Brisbane, as from the 1st instant.

Dr. **Wilkins**, well known in Auckland, has been acquitted by the New Zealand Supreme Court on the charge of causing the death of a woman by an illegal operation.

We regret that Sir James Graham, M.D., has not been re-elected Mayor of Sydney. We understand that he proposes to leave Sydney early in January next for a trip to Great Britain via the East, and to return home via America.

Dr. **Dixon** has been elected medical officer of the Bulli, Clifton, and South Clifton collieries in succession to the late Dr. Sturt.

While returning from visiting a patient, Dr. A. S. Vallack, of Bowral, N.S.W., met with a severe accident. As he was mounting his horse the animal bucked and threw his rider heavily, with the result that he sustained a broken collarbone. Dr. Stevenson, of Moss Vale, attended to the fracture. He is now progressing favourably.

Dr. E. J. A. **Haynes** has returned from his trip to Europe, and resumed practice in Perth, W.A., in conjuction with his partners Dr. Thurston and Dr. R. E. Newton. Dr. Haynes visited the hospitals in all the capitals of Europe, and also took the F.R.C.S. Irel., in Dublin.

Dr. D. W. **Hunter**, has commenced practice at Carterton (Pro. Wellington, N.Z.)

Dr. **James Gray** has left Quirindi. He has received an appointment as Government medical officer in Rhodesia, South Africa. Dr. Gray previously spent several years there.

Dr. **Pirie**, whose term of office as acting medical superintendent at Liverpool Asylum during the temporary absence of Dr. Beattie has expired, was presented with a handsome silver-mounted liquor-stand by the staff and inmates of the institution. Dr. Beattie made the presentation in the presence of the members of the staff. Dr. Pirie suitably responded.

Dr. **John Macpherson**, late of Glen Innes, has established practice at 1 Hyde Park-terrace, Liverpool-street, city.

Mr. **James Martin Beattie**, M.A., formerly of Dunedin, who took the degrees of M.B. and C.M. in 1894, with first-class honours, has now had conferred on him the degree of Doctor of Medicine by the University of Edinburgh. Dr. Beattie attained the highest of the four degrees of merit in passing his M.D. examination.

Dr. S. A. **Dowe** has removed from Kempsey to Mount Hope, N.S.W.

Dr. F. G. **Brathwaite** has removed from Sydney to Wellington, N.Z.

Surgeon-Captain E. J. **O'Neil** of the New Zealand Mounted Rifles, has been mentioned for conspicuous acts of bravery in the last list of despatches from Lord Kitchener.

Dr. J. C. **Grinting** has removed from Inglewood to Te Aroha, N.Z.

Dr. W. R. **Close Erson**, formerly of Onehunga, has settled at Rotorua, N.Z.

Dr. R. V. **Fulton** was the recipient of a handsome illuminated address on Friday evening, October 18th, 1901, from the members of the Triumph Lodge, No. 9, P.A.F.O.A., Dunedin, on the occasion of his severing his connection with the lodge as medical officer. Dr. Fulton heartily thanked the members for their presentation, and said he had always tried to give satisfaction, and it was refreshing to find he had apparently done so.

Surgeon-Major **Will** brought his course of ambulance lectures to the Dunedin Engineers to a close on Monday evening, October 21st. In proposing a vote of thanks to the surgeon-major for the time and trouble which he had devoted to the class, the officer commanding referred to the fact that Dr. Will had now delivered six courses of lectures to the engineers.

Whilst Dr. W. C. McClelland of Newtown was driving a spirited horse in St. Peters a few days ago, one of the reins snapped, and the animal bolted. The vehicle was brought into contact with a post and Dr. McClelland was thrown out, but escaped without any serious injuries, and is now quite well.

Dr. C. V. **Bowker**, the medical superintendent of Sydney Hospital, has been confined to his bed during the past week owing to a severe attack of illness. A few days ago he underwent a slight operation, and since then has been progressing favourably. It will be two or three weeks, however, before he is able to resume his duties, which are now being carried on by Dr. H. G. Stacy.

Dr. E. C. **Stirling**, Director of the Adelaide Museum, has returned from a holiday Continental tour. He visited the great natural history museums of the States, with the idea of trying to establish a working connection between them and our own museums.

The late Lieutenant-Surgeon **Palmer**.—On the 29th October a tablet erected by his fellow-students in Trinity College Chapel, Melbourne, to the memory of the late Surgeon-Lieutenant Palmer. who was killed at Wilmansrust, was unveiled. A touching proof of the affectionate regard in which he held his old college is afforded in the fact that he has left a bequest of £50 to the Trinity Library, to be applied in the purchase of books for the use of the medical students.

Dr. **Tracy Inglis**, Resident Surgeon at the Auckland Hospital resigns his position on December 31st.

Dr. R. A. **Buntine**, who, it will be remembered, was one of the first Australians to gain distinction in the present war, and who was later confined in Ladysmith with Sir George White's garrison, has arrived in Melbourne. He is accompanied by Mrs. Buntine, and purposes spending a holiday amongst his Australian friends for a few months.

Dr. **Isaac Waugh**, of Parramatta, was recently reported to be seriously ill. After a busy day, the doctor was attacked by a violent fit of coughing, when he ruptured a blood vessel on one of the lungs. He had another attack of hæmorrhage the next day.

Dr. T. J. **Sturt**, of Kogarah, whose death is announced, was medical officer of the Bulli district for many years, and only resigned his practice in favour of his son, the late Dr. Clifton Sturt, who died lately on board the Zealandia at Napier, N.Z.

A private cablegram has been received stating that E. R. Sawrey, M.D., Melbourne, has passed the final examination for the fellowship of the Royal College of Surgeons, England.

Dr. G. P. U. **Prior**, formerly of Fiji, has settled at Penola, S.A.

The resignation of Dr. T. E. F. Seabrook, resident surgeon at the Broken Hill Hospital, has been accepted, and the committee has decided to advertise for a successor.

Dr. J. C. **Halliday** has commenced practice as an ophthalmic surgeon at 231 Macquarie-street, Sydney.

Dr. D. T. **Harbison**, of Adelaide, has been elected a Fellow of the Royal College of Surgeons.

His Excellency the Governor-in-Council recently appointed Dr. W. T. **Hayward** honorary commissioner to represent South Australia at the International Medical Congress of Australasia, to be held at Hobart in February, 1902.

Dr. and Mrs. E. W. **Morris**, of Port Adelaide, returned from a trip to Great Britain. Dr. Morris attended the meetings of the British Medical Association, held at Gloucestershire. He also visited St. Thomas's Hospital, London, and what chiefly impressed him there was the completeness of the arrangements for avoiding complications by antiseptic treatment.

AT the last meeting of the Senate of the University of Sydney the Registrar reported that Mr. J. P. Hill, B.Sc., demonstrator in biology, had been allotted a fourth grant from the Royal Society of London to assist in his researches in the development of the marsupialia and monotremata, thus making a total sum of £350 granted for this purpose. Further, that Mr. Hill had been elected to a George Heriot Research Fellowship by the Edinburgh University, in the department of natural science (zoology), in 1900 and 1901; and that in 1899 he had been awarded the Edward Forbes prize for research work in zoology.

MEDICAL APPOINTMENTS.

The following Medical Appointments are announced :

NEW SOUTH WALES.

Armstrong, Hugh, F.R.C.S. Eng., to be Medical Officer Friendly Societies' Medical Institute, Tamworth.

Collins, Patrick John, Lic. K. *et* Q.C.P. Irel., Lic. R.C.S. Irel., of Woollahra to be a Justice of the Peace.

Moffit, J. E. J., Lic. K. et Q. Coll. Phys Irel, Lic. R. C. Surg. Irel., to be Government Medical Officer and Vaccinator for Balranald, *vice* Dr. J. P. Kelly, left the district.

Palmer, Dr. Arthur A., to be a member of the Administrative Board of the Civil Ambulance and Transport Brigade, *vice* Dr. E. Harold Binney.

Shaw, F. C. S., J.P, M.B., to be an "appointed member" of the Licensing Court for the licensing district of Emmaville (N.S.W.).

Sproule, Dr., late of Queensland, to be Medical Officer at the hospital, Wyalong.

Stanley, G. P., M.B., Ch.M., to be Medical Officer Friendly Societies' Medical Institute, Tamworth.

Terry, Hedley, M.B., M.Ch. Syd., Government Medical Officer, Kiama, to be Medical Officer to the aborigines at that place.

The following gentlemen have been appointed Clinical Assistants at Prince Alfred Hospital :—Ophthalmic department : J. C. Halliday, M.B., Ch M. Throat, ear, and nose department : H. Russell Nolan, M.B. Gynæcological department : A. Watson Munro, M.D., and H. C. Taylor Young, M.D., Ch.M. Medical department : N. W. Kater, M.B., and G. Allan, M.D.

Wilson, J. H., L.R.C.P. and S., etc., to be Resident Surgeon and Dispenser at Trial Bay Prison.

VICTORIA.

Deane, Edward Wilkinson, M.B., to be Public Vaccinator for the North-western District, Melbourne, *vice* James Charles Weld, L.R.C.S.

Fetherston, Richard Herbert, M.D., to be Public Vaccinator for the Metropolitan District, Melbourne, *vice* Gerald Henry Fetherston, M.D., deceased.

Fullerton, Robert John, L.R.C.P., to be Public Vaccinator for the Northern District, Melbourne *vice* Alfred Ernest Walsh, M.B., deceased.

Harkness, Edward, L.R.C.P. to be Public Vaccinator for the South-eastern District, Melbourne.

Hayes, James Bennett, L R C.P. (Acting, during the absence of James A. L. Scott, M.D., on leave), to be Public Vaccinator for the South-western District, Melbourne

Hay, John Binny, M.B., to be Medical Officer of Health for the shire of Bulla, *vice* Richard Player, M.B., resigned.

Hoysted, Lionel Norton, M.R.C.S., Norman Dowling, M.R.C.S., and James Blair Donaldson, L.R.C.P., to be Medical Officers of Health for the shire of Hamden, for the East, West, and North Ridings respectively.

Liddle, Percy Herbert, M.B., to be Medical Officer of Health for the shire of Glenlyon, *vice* Harry Findlay Main, M.B.

Manly, Richard Augustus Aloysius, M.B., to be Public Vaccinator for the Midland District, Melbourne *vice* Arthur Edward Blackett Forster, M.B., resigned.

Ormond, James Service, M.D., to be Medical Officer of Health for the town of Malvern *vice* Charles James Parkinson, M.B.' resigned.

SOUTH AUSTRALIA.

Hamilton, Dr. J. A. G., has been appointed Gynæcologist at the Adelaide Hospital, *vice* the late Dr. Way.

Juttner, Dr. J. F, to be a Medical Officer to attend to the destitute poor and aborigines at Barossa, East Ward.

Scott, Dr. F. S., to be a Medical Officer to attend to the destitute poor and aborigines at Mitcham.

QUEENSLAND.

Flynn, John, L.R.C.P. and S. Edin., etc., to be Acting Official Visitor to the Hospital for Insane, Sandy Gallop, during the absence on leave of Kevin Izod O'Doherty, F.R.C.S. Irel., &c.

Thomson, John, M.B., &c., to be Acting Official Visitor to the Hospital for Insane, Goodna.

TASMANIA.

Butler, Gamaliel H., M.R.C.S., L.R.C.P. to be a member of the Central Board of Health, Hobart, in succession to Dr. R. S. Bright, deceased.

Crowther, Dr. Edward Lodewyk, to be President of the Court of Medical Examiners, Hobart, in the place of Dr. Bright, deceased,

Donald, M.B., C.M., Deloraine ; Damman, George W., M.B., Penguin; Ponder, Charles F., M.B., C.M., to be Public Vaccinators registration district of Hobart.

Lines, David H. E., M.B., Ch.B. Melb., to be House Surgeon of the Hobart General Hospital, in succession to Dr. Macgowan, resigned.

Sprott, Gregory, M.D. Glas., D.P.H., to be Honorary Medical Officer of the Hobart Hospital, in succession to Dr. R. S. Bright, deceased.

Wolfhagen, Dr. John Edgar, to be a member of the Court of Medical Examiners, Hobart, in the place of Dr. Bright, deceased.

WESTERN AUSTRALIA.

Hope, Dr. J. W., to be Honorary Consultant to the Fremantle Public Hospital.

Hurst, Dr. J. D., to be Public Vaccinator at Laverton.

NEW ZEALAND.

Craig, Surgeon-Captain G., late of Rarotonga and also of the Fourth New Zealand Contingent, to be Medical Officer to the Friendly Societies at Waitekauri.

Riddell, James Edward, Lic. R. Col. Surg., etc., to be a Public Vaccinator for the districts of Wainui and Porangahau.

Stenhouse, Dr. Andrew, St. Bathan's to be Public Vaccinator for the Blackstone District.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

THE Medical Board of New South Wales met on December 11th. Sir Arthur Renwick (President) was in the chair, and there were present Drs. Milford, P. Sydney Jones, W. H. Goode, T. S. Dixson, and E. J. Jenkins. A letter from the Queensland Medical Board was read, conveying certain information with reference to an application which had been made to that board for registration by a person named Lo Mang. A further communication was also received from Mr. B. H. Birchill. The application of Harold Skipton Stacy for the registration of his M.D. University of Sydney, was granted. The applications of Augustus Daniel Kearney, Lic. R. Coll. Phys. Edin. 1900, Lic. R. Coll. Surg. Edin. 1900, Lic. Fac. Phys. *et* Surg. Glasg. 1900; Herbert Clatworthy, Lic. Soc. Apoth. Lond. 1880, Mem. R. Coll. Surg. Eng. 1881 ; and Johannes Karl Hein, M.D. Univ. Könisberg 1889, State Exam. Certif. Könisberg 1899, were granted, and they were ordered to be registered and gazetted.

An application for registration under section b, clause 3, Act No. 26, 1898, was declined, as the applicant was unable to show five years' study in a school of medicine. Applications for registration under section 3, Act No. 70, 1900, were received from Augustus Lytton Webbe, of Jerry's Plains ; Ernest Edward Wilbe, of Silverton ; and John Joseph O'Reilly, of Dungog, and these were postponed for further information.

The following persons have been duly registered as legally qualified medical practitioners in their respective states :—

NEW SOUTH WALES.

For Additional Registration :

Deck, George Henry Baring, M.Ch., Univ. Syd. 1893.
Read, William Henry, D.P.H. Camb. 1901 ; Ch.M. Univ. Syd. 1898.

QUEENSLAND.

Webster, Edgar Ernest, Bundaberg, M.B., Ch.B. 1899, Univ. Melb.

Re-published.

Salter, Alexander George, M.B., Ch.B. 1895, Univ. Melb.

WEST AUSTRALIA.

The following additions have been made to the register :—

Erson, Edward George, Peak Hill, L.M. and L.R.C.P. Edin. 1876.
Hussey, Bertram Fowler, Perth, M.R.C.S. Eng. 1900; M.B. Lond. 1901.

TASMANIA.

Simpson, Colin Coape, M.R.C.S. Eng. 1898 : L.R.C.P. Lond 1898.

BOOKS RECEIVED.

Materie Medicale Zoologique. Par H. Beauregard. Revise par M. Goutiere avec Preface par M. D'Arsonval. Paris : C. Naud, 3 Rue Racine.

Elements of Practical Medicine. By A. H. Carter, M.D. Eighth edition. London : H. K. Lewis, 126 Gower Street.

The Surgical and Medical History of the Naval War between Japan and China during 1894-95. Translated from the original Japanese Report, under the direction of Baron Saneyoshi, F.R.C.S. Eng., etc., Director-General of the Medical Department of Imperial Japanese Navy, by S. Suzuki, M.R.C.S. Eng., L.R.C.P. Lond., etc., Deputy Inspector-General of Hospitals and Fleets, Imperial Japanese Navy.

Catechism Series—Botany, Part II. Edinburgh : E. and S. Livingstone.

Handbook of Public Health. By Jno. Orr, M.S., F.R.C.P.E. Edinburgh : E. and S. Livingstone.

A System of Physiologic Therapeutics. Edited by Solomon Soles Cohen, M.D. Vol. I. and II. Philadelphia : P. Blakiston's, Son and Co., 1012 Walnut Street.

BIRTHS, MARRIAGES AND DEATHS.

BIRTHS.

DOCKER.—On the 13th November, at Hurd-street, Portland, the wife of Wyatt Docker M.B., Ch.B., of a daughter.

GREEN.—On the 21st November, at 42 College-street, Sydney, the wife of Dr. Terence Green, of a daughter.

KATER.—On the 10th December, at 28 College-street, Hyde Park, the wife of Dr. Norman W. Kater. of a son,

READ.—On the 18th November, at Starguard House, Picton, the wife of Dr. Read, of a son.

RYAN.—On the 12th October, at "Strathroy," Barker's-road, Auburn, the wife of Dr. T. B. Ryan, of a son.

MARRIAGES.

HODGKINSON—HOPE.—On the 7th November, at the residence of the bride's uncle, Dr. Fulton, "Brymerton," St. Kilda, by the Rev. D. S. Maxwell, Claude Fulton Hodgkinson, M.B., eldest son of W. Hodgkinson, Omeo, to Mary Bremner, third daughter of the late Arthur Hope, Bonnington, South Yarra.

LUDOWICI—HAWDON.—On the 26th October, 1901, at St. John's Church, Moruya, by the Rev. J. H. Williams, Edward Ludowici, M.B., Ch.M., third surviving son of J. C. Ludowici, Esq., Lane Cove, Sydney, to Alice Hope Hawdon, eldest daughter of Francis Hawdon, Esq., Turlinjah, Moruya.

DEATHS.

BROWN.—On the 28th November, at Melbourne, George Harward Brown, M.B., B.S., late of Derby, Western Australia, dearly loved husband of Mary Isabel Brown, and eldest son of the late Warren Hastings Brown, of Geelong, aged 45. Interred at the Boroondara Cemetery, on 29th November.

BYRN.—On the 21st November, at the residence of Mr. E. N Bolton, 40 Regent-street, Elsternwick, Victoria, Dr. A. E. Byrn, late of Maldon.

COUNTER.—On Sunday, the 24th November, at North Adelaide, Ada, the dearly loved wife of Dr. E. J. Counter, and third daughter of Mrs. E. Watson, late of "Bert Hollie," Brunswick.

FOULIS.—On the 24th October, 1901, at Edinburgh, Scotland, James Foulis, M.D., eldest son of the late John Foulis, M.D., of Sydney, in his 56th year.

HOLTHOUSE.—On the 10th December, 1901, at his residence Pleasant-street South, Ballarat, Victoria, Thomas Le Gay Holthouse, M.R.C.S.

STURT.—On the 8th November, 1901, on board the S.S. Zealandia, at Napier, N.Z., suddenly from aneurism, Clifton Sturt, L.R.C.P., etc., etc., Edin., the dearly loved husband of E. J. Sturt, of Bulli, and second son of Thomas James Sturt, M.D., Kogarah (deceased), aged 43 years. At Rest.

TIBBITS.—On the 10th December, Walter Tibbits, M.R.C.S. Eng. at Dubbo, N.S.W., aged 68 years.

NOTICES.

THE "GAZETTE" IS EDITED FOR THE PROPRIETORS BY
GEORGE E. RENNIE, M.D., SYDNEY, N.S.W.;
AND FOR THE OTHER BRANCHES OF THE
BRITISH MEDICAL ASSOCIATION BY
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ADELAIDE, S.A.; HERBERT HORROCKS, PERTH, W.A.

ORIGINAL ARTICLES WILL BE INSERTED SOLELY ON CONDITION THAT THEY ARE NOT CONTRIBUTED TO ANY OTHER PERIODICAL.

SPECIAL NOTICE.—ORIGINAL ARTICLES FOR INSERTION IN THIS "GAZETTE" SHOULD REACH THE EDITOR ON THE 3RD, OTHER COMMUNICATIONS NOT LATER THAN THE 7TH, AND CORRECTED PROOFS ON THE 12TH OF EACH MONTH. FAILING THIS, THE EDITOR WILL NOT BE RESPONSIBLE FOR NON-INSERTION OR PRINTERS' ERRORS. VERY LENGTHY COMMUNICATIONS WILL ONLY BE INSERTED WHEN SPACE PERMITS.

All communications intended for publication may be addressed "The Editor, Australasian Medical Gazette, 121 Bathurst Street, Sydney," or to the Branch Editors for the other States. Business communications should be addressed "The Manager."

Contributors will have to pay the cost of illustrations accompanying their articles.

To Advertisers.

We desire to draw the attention of Advertisers to the fact that our Issue of January next will contain a Special Congress Supplement, and will be sent to every Practitioner in Australasia. Our February Issue will be a Special Educational Number. Early application should be made for Inset or other Advertisements to the Manager, 121 Bathurst-street.

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We have received from Messrs. Burroughs Wellcome & Co. the following specimen : "Tabloid" Beta-Naphthol Compound. The formula for this preparation is as follows : Beta-Naphthol, gr. 1 ; wood charcoal, gr. 4 ; oil of peppermint, min. ½ ; and one to four or more may be prescribed for a dose. Beta-Naphthol is held to be of much service in cases of gastric fermentation accompanied by dilatation ; the palliative effect of wood charcoal in dyspepsia is recognised ; and the addition of the diffusible stimulant oil of peppermint renders the product an eligible combination.

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